

The American Journal of Clinical Medicine

Dependable Therapeutic Fact
For Daily Use

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"Faith in Folks"

Good and wise, if quaint and homely,
Is this motto for our living;
Lack of faith brings many sorrows,
Trustful souls are rich through giving;
Cold suspicion leads to strife,
Faith makes beautiful all life.

Summer has November in it
If we do not trust each other;
Gloom is in the heart of any
Who must always blame a brother;
Life has roses all the year
For the man of kindly cheer.

Evil dreams and fears assault him
Who the worst is ever thinking;
Who looks sourly on the world
Gall and wormwood has for drinking;
Therefore, lest thy spirit thirst,
Be not swift to think the worst.

Let thy heart be strong for loving,
Judge not others are deceiving,
God is father of us all,
Therefore, live and love believing;
Faith inspires true helpfulness:
Trust, and love all life shall bless.

—Farningham

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The American Journal of Clinical Medicine

A Monthly Journal Devoted to Accuracy, Dependability and Honesty in every Department of Medicine and to the Safeguarding of the Doctor

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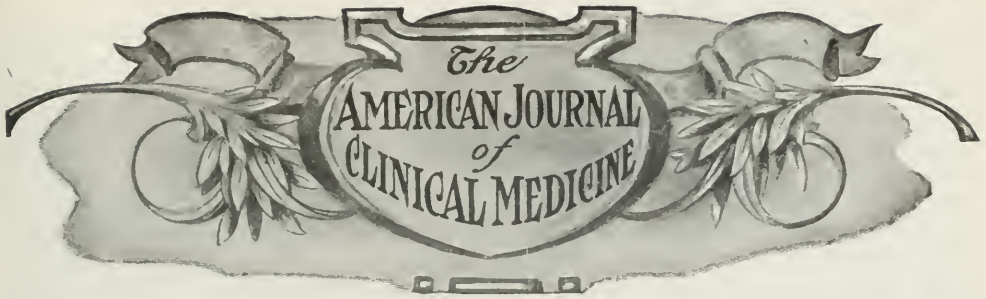
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CLAUDICANT SCIENCE

A plea for the useful, practical, readily applicable forms of knowledge, in the development of medical science: The great need of the physician is to know more of therapeutics

THERE be scientists little and scientists great; men whose gaze into the fathomless depths of the "Is" has been so deep and penetrating that their own consciousness is dwarfed by comparison with the immensities perceived; and a more numerous class of arrogant superiorities who look with disdain from the heights of their ant-hills. "Would you believe it," she exclaimed, "he really supposed Louis XV was the son of Louis XIV!"

More and more we are impressed with the limitations of men's capacities for receiving and assimilating knowledge. The human brain is usually but a scant pint cup, and into it we can not crowd a quart of information and yet leave room for utilizing reasoning. The consequence is too frequently that minute observation of facts that ends there, and fails to truly comprehend by recognizing the interrelations with other parts. The best exemplification of this truth is afforded by the very distinguished leaders of the medical profession. Just where one would expect the widest outlook we find the narrowest; where the most comprehensive conceptions are required we find the human limitations most painfully apparent.

The medical profession is made up of a small number of men who are exclusively

interested in limited parts of the great field; a large number of others who follow the latest fads, oblivious to all but the delights of being "up to date" and "in the swim;" and a vast mass so firmly rooted to its place and its beliefs and prejudices that it refuses to budge unless to a charge of intellectual dynamite. This last section is mute. It forms the silent audience in our societies, the never-expressing-itself subscription list of the journals; men who listen, read and think, but solely to themselves, plodding along in their own way with, as a rule, little deviation. Thousands of these men continued to rely on venesection and evacuants many a year after they had disappeared from medical literature, many still trust to calomel, opium and quinine, and rarely make an excursion beyond this triad.

Most of this conservatism is not due to lack of enterprise but to a well-founded distrust of the leaders. "These disquisitions on pathology are fine, but there is nothing we can use."

No matter how important science in the abstract may be, or how promising the possibilities revealed for the future by any investigation, the man who has difficulty in sustaining himself in the place of the most fit, and holding his own in the struggle

against an army of competitors, wants what will aid him this very minute; and when his immediate needs are fulfilled has little energy left to devote to more remote possibilities. He is content to let those interested proceed with the development of the subject until it has reached the stage of practical utility before he gives it his attention.

For these reasons the great leaders of the day have less hold on the masses of the profession than would appear likely on casual investigation. The trend of such abstract science has been for some decades in any direction except that of applied therapeutics. In fact, it has been aptly said that "educated belief and prejudice keep people in therapeutic darkness;" and therapeutic darkness is just now becoming objectionable. One medical editor speaks of Osler's "blank hopeless pessimism" as rendering him an unfit guide in practice; and another says that the great pathologist probably never in his life seriously applied his whole force to the problem of how to cure a patient.

When the writer began the practice of medicine in the open field as a private physician, he began with "Flint's Practice." The time came when he encountered an obstinate case of acute rheumatism. The patient endured his pangs for a week, and then one day said resolutely: "I will give you one more day; and if I am not better I shall get another doctor." We simply *had to* relieve that man. So we turned to Flint, and got this valuable information: "In some of these cases it has sometimes seemed that possibly potassium iodide afforded some benefit." That was all! We flung Flint to the other side of the room, and never again opened the book. Something more decided is required to cope with the emergencies of actual practice, at least in the great cities where competition is severe.

Probably the rough experiences of these early years gave us the liking for strictly useful, readily applicable knowledge that has always since been present with us. We have felt that it was time enough to

pay attention to advance reading when our cases had been mastered; to abstract science when the lives of our patients had been saved and their sufferings assuaged. When therapeutics has been developed to an equality with the collateral branches of medical science we shall have more time for the less essential departments. When drug-therapeutics has been reduced to something approaching scientific order we shall take up the consideration of its true value, and devote more time to the indirect, costly and far less applicable therapeutic methods.

There is a certain class in the profession whose chief solicitude is that their attitude shall be strictly "correct." Their beliefs are regulated in accordance with those of the biggest authorities at the time. They could not be induced to favor a view that was not "accepted" or a remedial method that had not been passed upon and endorsed by somebody "way up." We have never felt that we had time—or perhaps ability—to tackle these worthy gentlemen. To us the practice of medicine is a serious matter, and we have been wholly absorbed with the class that cares solely for the patient and his needs.

So far as our observations go, the former class contains all of the medical women. It is in vain to seek for the champions of an unpopular cause among our sisters. Their highest ambition, as shown by the papers they read and print, is to demonstrate their scholarship—their entire correctness. This quality renders them successful in the examinations for graduation, license, etc., but there seems not a trace of originality or one little timid step toward the front on their part. The concentration of their quick intellects on the task of memorizing and repeating lessons parrot-like, without the slightest deviation into any dim collateral paths, however alluring, would place them in the front rank were success in lifework to consist in passing examinations.

There are many men in whom this essentially feminine trait seems as well developed as in the women themselves.

Our work is with Men, real men, masculine men, with all the attributes of their sex. Men who are more concerned with the man than with the cut of his garments; men who are not very averse to a scrap occasionally; men who care more for the truth of a matter than for the standing of its advocates. This type of man joins lustily in "Die wacht am Rhein," or "Rally round the flag," and endures, if it must, a Hungarian rhapsody. These are the men who do the world's work.

Our lot lies with these. To the physician whose first thought is as to the welfare of his patient we have a message; to the rest we simply say, "God bless you in your chosen paths," and pass them by.

At last, after all these centuries of uncertainty, blind groping, perilous and timid experimenting, constantly repeated and never reaching any permanent conclusions, we see the dawning of a new day. Clinical observation wins respect and confidence, as it establishes a firm support for subsequent steps. When each forward movement permits of another, progress becomes possible.

We are at the antipodes of the medieval conception of a mysterious, magical panacea. The neophyte does not haunt the steps of the great man's sanctum in the hope of lighting on one of his secrets, but builds his own edifice, from his own knowledge of natural law. Men in whom the old methods are permanently fixed keep asking us for our "authority" for this and that, incapable of comprehending that each must be his own authority. With the confidence founded on clear and certain knowledge, Therapeutics plants its foot firmly on the platform, and claims its place among the exact sciences.

NATURE FAKERS

If only people would look one little inch before their noses and think one little wee bit! Now here are these clamorers for eternally copying nature, and nature's ways, and nature's methods of cure.

Does nature cure? Come to think of it, nature does not try to cure. Nature

exterminates the unfit, and leaves the fit to populate the earth. Do the unfit want to be exterminated? Is not the doctor's whole duty, after all, the preservation of the unfit and teaching them the ways to transform themselves into fitness?

There is a total misapprehension as to the function that nature plays in these matters. Nature provides agencies, but she leaves to us the task of fitting these agencies to conditions. Nature provides a cold wind, and a hardy individual going out into that wind is strengthened by it; but a weakly individual may be killed. Who is to make the choice? Certainly not nature. The doctor? Nature provides cold water in which we may bathe, but she leaves to us also the task of deciding who is to bathe, and when, and how. Nature provides food, while she leaves the question to us to decide how much food, and what food, we are to eat, and at what time.

After all, does not nature put the active principles into plants also? And why are these any less nature's remedies than those we have mentioned? There is no such thing as getting away from the necessity of employing our brains, if we wish to live and move and have our being in this world. As yet the pigs do not run about ready-roasted, crying, "Who will eat me?"

The foundation of modern pharmacy is polypharmacy. Let the druggist attempt to describe his functions, or tell why he is necessary to the doctor, and he instantly begins to tell you about his mixing of drugs. For heaven's sake, why should he mix them? Only because two or more remedies are expected to be given together. And why should two or more be given together? Is not one enough? Certainly it is enough, if it is the right one. If not the right one, a hundred are too few. Get rid of the idea, Doctor, that you have to mix a lot of medicines together, and the questions between physician and druggist are simplified amazingly. Give one remedy; be solicitous as to its quality; be thorough in your knowledge as to its functions; then be most accurate in your prescription of it and careful in your watchfulness of its

effects upon your patient. Incidentally, if you do not mix medicines you have less dependence upon the mixer. The druggist becomes more of a supplier of stores, and less important to the physician.

But it is not the druggist, not the physician, whose interests stand first, but the patient's; and who can deny that the patient's interests are best conserved by the utmost simplicity in his medication. Any other arguments than the benefit of the patient is indefensible. Possibly we have here an explanation of the hostility to the active-principle movement shown by the hirelings of certain galenic interests.

When you are feeling grouchy let the sunshine in;
When your face gets feelin' hard, crack it with a grin.
Don't be 'fraid of wrinkles, tear loose with your mirth;
An old face laughter-wrinkled is the sweetest thing on earth.

THE CHICAGO CLINIC AND PURE-WATER JOURNAL

Of late there have been few if any issues of *THE AMERICAN JOURNAL OF CLINICAL MEDICINE* which have not contained extracts, large or small, from the journal edited by Drs. Hatfield and Palmer. We have presented these extracts to our readers as samples, and only samples, of the numerous good things, bright things, witty things, true things, to be found in the pages of that journal. It is one of the not very large list of medical journals we ourselves read from cover to cover. We would advise you to send to the George Thomas Palmer Company, Springfield, Illinois, for a sample number; and we believe many of you will become subscribers to it. Drs. Hatfield and Palmer do not hesitate to touch us up whenever they see an opportunity, and there is no reason why they should not, since we are very, very far from claiming infallibility ourselves. But if ever a pair of surgeons know how to make the patient grin while they delicately insert their bistouries into him, it is these two.

Do not imagine from this that *The Chicago Clinic* is only something funny

or entertaining. Far from it. No medical editor has a nicer or clearer discrimination as to the selection of interesting and instructive material for his readers. We have gone over at least one hundred and fifty journals during the past month and have found nothing in any one of them more important than Adams' notes on the "Causes of Cancer," and the investigations on "Infant Feeding," which we credit to Dr. Hatfield.

DISEASE, SO CALLED, AND ITS TREATMENT

The naming of diseases, so called, has been unsystematic and fanciful. The movements of an animal, the dancing of fanatics at the death of a saint, the sensation of strangling or suffocation, the flowing of a stream or current, the burning of a fire, the effect of being stricken or knocked down—words or terms signifying these meanings, such as cancer, St. Vitus' dance, angina, catarrh, inflammation, apoplexy, and others equally fantastic, yet often forcible, have made up from the earliest times the nomenclature of disease, a nomenclature imperfect even for technical purposes of language and inapplicable altogether for the higher developments of medical scientific research and practice.

Disease is a very complicated *ensemble* of phenomena, which follow each other without interruption from the moment when the cause begins to act until its last effects are terminated either by a return to health or by death. In other words, disease is nothing but a new manner of being of the organs, which present either new phenomena or different modalities of normal ones.

We always see certain symptoms accompanied by certain others, and we observe in general a constant succession in certain groups of symptoms. Does the frequent occurrence of this simultaneity and this order of succession, maintained by the invariability of physiological laws, justify the classification of these natural series of groups of symptoms into different species of disease, as if they were entities characterized by

typical properties? Such a notion is entirely a false one.

The morbid phenomena determined by numerous and different conditions vary unceasingly, according to the varying combinations of these conditions of the conditions; it is, therefore, impossible to refer diseased conditions to certain types which shall be invariable or uniform.

We should not treat disease *per se*. We should treat the *individual* who is the victim of some morbid process, an elaborate and interesting organism possessing certain definite qualities. In fact, he is a man, not merely a "case" of this or that disease. He is a being who possesses the attributes of humanity collectively, together with some variations which form individual peculiarities.

The treatment of a sick person is a warfare, a campaign in which the physician studies to find out the strength and tactics of his enemy, the theater of his operations, and the troops at his disposal, before he elaborates a plan for his own offensive and defensive conduct. As soon as he has joined battle he should not only think of victory but should seek to cut off the retreat of the vanquished, follow up fugitives, repress disorder, clean up, clean out, and clear away that which has been destroyed, establish peace and harmony, arouse prosperity anew, and restore that which has been devastated by war.

It is indispensable that the cause of the morbid condition disappear if we are to effect a cure; but true curative therapeutics is concerned with the results of causes, not with the causes themselves. That is why the physician must bring to bear precise, dependable and rapid agents for the destruction or the elimination of the cause. We should endeavor to strangle the rebellion in its incipient state as rapidly as possible.

The jugulation of disease, so called, is one, the most important duties that is imposed upon the physician. In order to accomplish this, and restore the organism to its normal condition as soon as possible, he should lose no time but begin the struggle forthwith, and with safe, sure and certain active principles, so that instead of injuring the patient

himself with too large dosage, or allowing the enemy to get the upper hand because of inert or ineffective remedies, he should with an improved and effective armamentarium put the enemy to and out, restore the field of warfare to its natural condition, and all in such a way that the patient shall remain at least neutral upon its own territory in this struggle, which is carried on in its behalf.

Be at war with your vices, at peace with your neighbors, and let every new year find you a better man.
—Franklin

WHY THE DOCTOR FAILED

Mastery is the secret of success. One reason why so many doctors fail in the use of their remedies is because they know so little about them. This ignorance is probably more common among city physicians than among the country men, because it has become the fashion for the former to ridicule drug-therapeutics. So, while even the skeptical physician whose therapeutic faith is dead continues to give medicine, because his patients expect it, too often he gives it thoughtlessly, carelessly and often ignorantly, jotting down prescriptions for impossible mixtures with hardly a second thought concerning their action. And this attitude of mind and banality of practice carries him farther and farther into the slough of despond—whose other name is ignorance.

An editorial writer in *The Massachusetts Medical Journal* tells of a bottle brought to a pharmacist to be refilled, the inner walls of which were found to be decorated with the active principles of the compound which it had once contained: an example of a very common incompatibility—the attempt to administer a resinous body in an aqueous vehicle. Another physician is reported as saying that he secured better results with fluid extract of digitalis than he did with the tincture. On investigation it was found that he was giving the fluid extract in the dose of the tincture, or the equivalent of fifty-five drops of the latter at each dose. No mastery here—only disaster, or the breeding of therapeutic pessimism. If these doctors had

had clear ideas concerning the nature and exact action of the remedies which they were giving and had tested out these ideas by the personal administration and study of them at the bedside, they most surely would have been guilty of no such glaring errors.

Contact breeds knowledge, familiarity, strength. That is why the dispensing physician is not likely to make mistakes like these. If he gives the single remedy and gives "to effect," watching its action closely from dose to dose, he finally becomes a master as regards that remedy and can secure results with it which are undreamed of by the man whose ever-ready prescription pad invites to the combination of impossible mixtures of more than doubtful activity.

But behind the incompatibility of one prescription and the enormous dosage of the other lies another fact, which has much to do with success or failure. That is the uncertainty of the remedies which were used. In the first case the medicine was probably inert. Drugs of this class vary enormously in efficiency on account of the care needed in their manufacture and in prescribing them. As the writer of the editorial quoted says, "many weak and worthless preparations may be found on the market." And so there are many conflicting reports as to their efficiency. In the second case it is probable that the doctor was led to the use of dangerously large doses of the fluid extract of digitalis as the result of experience with a weak, almost useless preparation of this variable drug.

How much better it would be if physicians would turn to the one class of remedies which are always of uniform strength, always active, always to be depended upon—the active principles. To quote the editorial from *The Massachusetts Medical Journal* again: "If the unscientific observers would look more to the *quality* of their goods, these conflicting reports would begin to subside."

It is quality which gives the alkaloidal preparations their popularity; cheap drugs in the long run are the most expensive, and the man who seeks to save a penny in such expenditure will find that it will cost him

many a dollar, and possibly many a life. And this is just as true of the unscientific as of the scientific man.

I do profess to be no less than I seem; to serve him truly that will put me in trust; to love him that is honest; to converse with him that is wise, and says little; to fear judgment; to fight when I cannot choose; and to eat no fish.
—King Lear.

DR. TAYLOR'S TRIP WEST

If you don't read *The Medical World* you miss a whole lot; and if you don't read the September number you will especially miss a charming paper by the editor, entitled "Across the Continent." Dr. Taylor and his wife traveled to the Pacific coast, taking in the great sights on the way there and back, and the account of it is simply too good for you to lose. This is a new vein for Dr. Taylor, and since he has started on it we wonder that he has not done it before. In the article is comprised what may be denominated a version of Hiawatha, brought down to today. Dr. Taylor traveled with his eyes and ears open; his observations are marked by sterling good sense and appreciation. We have been to the Northwest twice within the last three years, and we know that what he says, while all of it is true, yet is after all only a part of the wonders there to be seen and heard. If we were under thirty years of age, we should go to the Northwest today; but not to practise medicine.

CACTUS IN RAYNAUD'S DISEASE

A valuable contribution to the therapeutics of this remedy appears in *The Eclectic Medical Gleaner* for September. The editor, Dr. Harvey Wickes Felter, who by the way is one of the editors of "The American Dispensatory," writes as follows:

"Cactus has acquired a reputation among eclectics as a remedy for circulatory disorders that is little known beyond the confines of our school of practice. Notwithstanding that Rubini and others have from time to time called attention to its action upon the heart and blood-vessels, but little serious attention has been paid to the agent

except among our own practitioners. Rubini early asserted a notable effect upon the vasomotor nerves, and yet but little heed has been taken of this fact in therapy.

"A recent experience with it in a disease in which the vasomotor nerves are chiefly at fault, if the pathology is at all understood, convinces us that it might have a much wider range of usefulness than is ordinarily ascribed to it. It has produced, in our hands, a remarkably restraining, if not actually curative, result in a case of Raynaud's disease which has lasted from early womanhood to a considerable period past the menopause. The case has been seen and treated by many physicians, and was progressively growing worse when we prescribed six-drop doses of specific cactus once a day. The good effects began shortly after beginning the use of the medicine. After taking it a few months it was dropped and the disturbance gradually returned. The good effects had been so marked while taking the cactus that its use was resumed and again with gradual amelioration, until now, considerably more than a year since the patient began using the medicine, she considers herself as practically cured. However, as a precaution lest the spasms return, she continues the daily dose. This is, so far as we are aware, the first case of this kind that has been treated with cactus. Electricity gives partial and temporary relief, but it does not begin to compare with the effects of cactus in this case."

This is a clean-cut and dependable demonstration of the value of cactus. It was not made on a cat, dog or guinea-pig, but in actual practice upon a human being. The patient was one who had suffered from this disease for many years; she had been treated by many other physicians, but was growing steadily worse; she improved when cactus was given; she relapsed when it was stopped; and improvement occurred again when its administration was resumed, the final result being apparent recovery.

The action of cactin is that of cactus. It has all its therapeutic efficiency, the greatest care being taken in its preparation that none of this shall be lost. In spite of all theo-

retical arguments to the contrary it is a safe, satisfactory and efficient remedy. Those who use it *know*.

You will note from the above that while the patient was taking cactus the progress of the disease was arrested, while if it was discontinued it would recur. If this does not show the effect of the remedy upon the circulation plainly enough, I cannot see what will.

Esery man has a neck, und sooner or later he gets it dare. —Dinkelspiel.

KILL THERAPEUTICS ?

Dr. Reed made the proposition to the A. M. A. that the various state examining boards exclude therapeutics from their tests of candidates. Dr. Reed is a bit behind the procession, for this exclusion is at present made by some of these boards. The reason advanced is that it will do away with the objections of homeopaths and eclectics to a single board, by placing their candidates on an absolute equality with the others, since the only difference in the teaching of the three schools is in this one department.

To this we may object that it will not do away with the distrust these gentlemen manifest toward any board controlled by the regulars. They feel that under no circumstances would they receive an impartial examination from their enemies. Moreover, this would not apply to the other and possibly more numerous practitioners of osteopathy, Christian science and innumerable others, who have in law and equity as much claim for consideration as the two sects named and whose differences with us are by no means confined to therapeutics.

There are other and more fundamental objections. Every teacher in medical schools knows well that the student can not be induced to give attention to any branch except those on which he must stand examination. No matter how essential it may be to his success in practice, he studies solely with a view to passing those dreaded

exams. They are an obsession to him. He thinks of them by day and dreams of them by night. He logically reasons that he must first acquire the legal right to practise, and the how to practise is a topic for future consideration. The more difficult the trial, the more he must exclude all that does not directly aid him in meeting its requirements and concentrate his powers upon them.

Our third objection is based on the foregoing: The exclusion of therapeutics nullifies the original object of the creation of these boards, and their only excuse for continued existence—the protection of the people against unqualified practitioners. It makes little difference how proficient a doctor may be in the fundamental branches of a medical education if he is ignorant of the best methods of treating the sick. He may be all kinds of a good anatomist, chemist, pathologist, bacteriologist and several other ists, and yet be utterly at a loss and useless as a practising physician—and yet it is precisely that and nothing else in which the community has an interest in him and his qualifications. Instead of excluding therapeutics from these examinations we would suggest that all else except this branch and diagnosis be excluded. The rest could be taken for granted—the medical colleges surely look out for them—what interests the public, in whose name and for whose protection these boards were called into existence, is the ability of the doctor to recognize and treat diseases.

In our boyhood we had pointed out to us in Philadelphia a row of rather ordinary houses, which went by the name of Morris' Folly. It was said of them that the builder had seven stories of cellars, and by the time the structure reached the surface of the ground his means were exhausted and he could only place these mean buildings over the magnificent cellars. *Verbum sapienti sat.*

The only way to deal with the medical sects is to wipe them out, by leaving the question of practice to each man as his own private privilege; a matter for his own conscience, in which no other man can have

anything to say in authoritative way. Recognize the principle of individual freedom of belief and action on which our commonwealth is founded, and drop the medieval idea of compelling uniformity. It seems so easy, if men were but wise and reasonable, and respectful of the rights of others.

What a piece of work is man! How noble in reason!
How infinite in faculty! In form and moving how
express and admirable! In action how like an angel! In
apprehension how like a god! The beauty of the world!
The paragon of animals. —Shakespeare.

GOOD THINGS IN THE ILLINOIS BULLETIN

The July number of the *Bulletin of the Illinois State Board of Health* gives an exceedingly interesting account of the case of Dr. Dowdell, who pretended to have "influence" over the Board and levied contributions from midwives and others who desired to pass the State Board examinations, with the aid of bribery. After carefully reading the *Bulletin* we are of the opinion that Dr. Egan has fully cleared his skirts of any suggestion of wrong in the matter. At the same time, if the evidence presented in this *Bulletin* had been put before any fair-minded man, like Dr. Moyer, without the explanation which is herein presented, showing that it was graft in which Dr. Egan was not in the slightest degree concerned, we are of the opinion that any ordinary man would have wrongly suspected members of the board of grafting. But between suspecting and expressing a suspicion in words there is a long difference.

Dr. Egan gives warning of the presence of smallpox throughout the State and urges vigorous action on the part of local health societies and physicians to prevent an outbreak during the coming winter.

The *Bulletin* further informs us that in Glasgow and Liverpool a crusade against house-flies has been inaugurated, these insects having been shown to be the medium for transmission of diseases like cholera, tuberculosis, trachoma, certain inflammatory eye affections, typhoid fever, intestinal

parasites and wound infections. It has also been suggested that the fly assists in the spread of gonorrhea, smallpox and various skin affections. Not only flies and mosquitoes, but cockroaches and bedbugs spread disease. The interesting fact is given that the wasp is the most effective destroyer of flies so that wasps' nests should not be molested.

MEDICATION IN TUBERCULOSIS

In *The Medical Record* of August 31 appears the report on "Medication in Tuberculosis," presented by a committee to the Association for the Study and Prevention of Tuberculosis, at the annual meeting held at Washington last May. The report is notable for the optimism expressed, and also for its frank advocacy of drug medication. Whether there is a connection between the two may be considered.

While no directly curative medication has yet been discovered, many drugs greatly improve the general condition by ameliorating symptoms and indirectly limit the extension of the disease or bring about fibrosis. "In view of that fact the committee deplore the prevailing tendency to ignore the use of drugs in tuberculosis."

The committee sees little value in creosote except in lessening the mucous discharge. Iodine is used less by physicians than by surgeons. One member believes it more nearly a specific than any other remedy. Arsenic and iron are of use for the anemia only. Several attribute great value to strychnine. Tuberculin was on the whole regarded favorably, but none had a good word for the antistreptococcic sera.

For cough, codeine and heroine, and voluntary restraint; for fever, rest and air; for night sweats, atropine, agaricin, zinc oxide and camphoric acid; for pleurisy, strapping, iodine or fly-blisters; for hemoptysis, when slight, glonoin as the vascular pressure indicates, also aconite and morphine, the latter only if severe and then hypodermically with atropine. The value of calcium chloride was ques-

tioned, and ergotin dropped. For diarrhea, calomel; if tubercular, iodoform or ichthyol; for constipation, the usual cathartics and oil enemas; for tuberculous laryngitis, iodoform or orthoform insufflations; for ulcers, lactic acid, with frequent inhalations of weak formalin; for many of these only cocainization before meals.

In the discussion Fussell favored strychnine in doses of gr. 1-30 three times a day. Von Ruck only discussed tuberculin, which he favored. Otis used ergot where there was low blood-pressure. Flick does not consider nephritis a contraindication for creosote, which he likes in mixed infections, and in all advanced cases, up to 50-drop doses t. i. d., for years, without intermission. He employs iodine only by the skin, as an oil inunction. Magnesium sulphate he finds the one remedy against tuberculous diarrhea. (This is in harmony with our own observations that regulation of the bowels is of vast importance to the consumptive.) Flick uses blisters to allow the serum to be reabsorbed, but Minor did not agree with this explanation of the benefit resulting. Pottenger and Denison acknowledged their ignorance of the applications of drugs. Woods Hutchinson said that night sweats were due to the collection of toxins in the system and would disappear if the patient were kept in the open air and the diet and bowels regulated. Knopf said creosote had spoiled more stomachs than anything else. He treated diarrhea by emptying the bowels and regulating the diet. Then followed his celebrated remark that "in the presence of a dying consumptive he believed it a sacred duty to give him morphine in doses sufficient to make him comfortable and relieve his distress." This seems to us rather axiomatic, but has served the ubiquitous reporter as an excuse for representing the speaker as advocating euthanasia. Solis-Cohen defended creosote from the standpoint of clinical observation of its great benefits after the failure of months of fresh-air treatment, etc.

There are many points in this report that will seem very familiar to the student

of active principles. The specific value of codeine for cough, glonoin and atropine for hemoptysis, the virtues of strychnine as a general incitor of vitality, etc. As to the diarrheas of the consumptive, they have learned the importance of emptying the bowels, and in time will learn that of calcium sulphocarbolate. But the best thing about the report is the strong, healthy optimism, and the evidence of a return to the study of drugs and their application in a sensible manner. There is little danger of overconfidence in them hereafter

If yer feelin' kind o' blue,
 Just keep still.
 Brighter days in store for you,
 Just keep still.
 Life's stream is deep and wide,
 And you cannot change the tide,
 Some things you must abide—
 Just keep still.

STOMACH SYMPTOMS AND DISEASES

In *The Western Medical Review* Dr. L.W. Littig calls attention to the distinction between stomach symptoms and stomach disease. Very often when stomach symptoms are present that organ is not at fault but some distant one, or there is some general affection of nerves or blood. The appendix vermiformis ranks as the first of these sinners; and stomach cramps, gastric tenderness, nausea and vomiting, neurasthenia, hysteria, palpitation of the heart, may all be due to chronic appendicitis.

He describes several interesting cases in illustration. One, a young woman under his care for ten years, had lost fifty pounds in weight from inability to retain food. She had repeated attacks of nausea and vomiting, for which she was kept in bed for six weeks on one ounce of milk each hour. She still vomited, was hysterical, and grew worse. Finally, acting on a possible diagnosis, the appendix was removed. It contained four cherry-stone sized concretions. The patient gained five pounds in weight while in the hospital and fifty pounds within a year, and has not had stomach pain or discomfort since.

The only criticism we can make of this case is that it is calculated to encourage surgeons to operate rashly upon the appendix when there is no sufficient indication of disease there. The occurrence of an occasional lucky guess does not warrant the general misuse of this form of operation, any more than it would warrant the operation for ocular tenotomy for the same symptoms, because occasionally a case may have been reported which subsided after such an operation was done. In Dr. Littig's practice it is not likely any harm would be done, but we look upon his doctrine as an exceedingly dangerous one for the average practitioner to adopt.

He next speaks of the gall-bladder, and quotes Ochsner as saying that a majority of those gallstone cases coming to operation have suffered from a diagnosis of gastritis; also that of Riedel, that of 100 cases of gastric cramps, 97 are due to gallstones.

Several good authorities are quoted to prove that gallstones are present in many cases in which they are not suspected. This, however, nobody would doubt. He especially quotes Fleiner who says that gallstone disease may not only simulate all diseases of the intestinal tract but may actually produce them; as stomach cramp, intestinal colic, vomiting, diarrhea, bloody vomit, bloody stools, symptoms of ulcer, actual ulceration, tumor, stenosis of the pylorus, duodenum and colon, gastric hypersecretion, tetany, and hyperchlorhydria. But to argue back that because each or any of these has been recognized in cases in which there were gallstones, and from this to draw the inference that gallstones were present wherever these symptoms occurred, is entirely another matter. Dr. Littig well says that diagnosis of cancer or ulcer, or of chronic gastritis should not be made without a most careful investigation of the gall-bladder; and he further says that his experience must be that of every man who sees patients with others. The diagnosis of gallstones has not been made, because the patient has not jaundice, or the typical pain, and calculi have not been found in

the stools. But Dr. Littig fails to add that his experience, being confined to cases which have puzzled or resisted the efforts of others, is altogether exceptional and cannot be taken as the general experience of the profession.

Surgeons are almost certain to look upon the experience and the cases that come to them as the rule, whereas they are only the exceptions. But he says well, while about the liver, the passive congestion of the stomach resulting from hepatic cirrhosis or neoplasms obstructing the portal circulation, and resulting hematemesis, ought to be mentioned. Also passive congestion of the stomach with marked stomach symptoms may be due to failure of compensation in heart disease. The venous obstruction incident to pulmonary emphysema and chronic pleurisy should be kept in mind. He also mentions abdominal adhesions and Glenard's disease, which is very common in women with contracted mid-zone of the body. Gastropotosis is usually associated with movable kidney, and the symptoms are neurogastric. These people are manufacturers of symptoms. A gastric examination is not complete unless the motility of the stomach has been tested. Stagnation often means pyloric obstruction, but may result from low energy due to many general causes. He then speaks of gastric symptoms due to eyestrain, and to the visceral crises of locomotor ataxia; also of gastric symptoms from neurasthenia or hysteria. The trouble may be ice-cream soda, nut sundæ or too much iced beer.

His hardest lesson has been learned from the gastric neuroses. These exist as a part of general neuroses, rarely as independent entities. They are more rare than chronic gastritis, and the latter is less common than gastric ulcer or cancer.

With the possible exception of strychnine the so-called stomachics are of no value in the gastrasthenia of general neurasthenia. The treatment must be that of the general condition.

In early tuberculosis the stomach is often treated when the prescription should be beefsteak and lawn tennis. A renal cal-

culus or crisis may suggest the stomach, also the gastric symptoms of uremia. In women the pelvic organs must always be examined, and slight lesions may cause more trouble than more severe anatomic changes.

The paper is indeed an excellent one and is well worth the slight trouble of sending for a copy of the journal containing it.

I don't think much of a man who is not wiser today
than he was yesterday. —Abraham Lincoln.

DRUGGISTS AND MEDICAL PRACTICE

A startling illustration of the extent and danger of counter-prescribing on the part of druggists is given by Dr. John D. Crisp in a late number of *The Denver Medical Times*.

One night he was telephoned to by a man who wanted him to come to his office, where he would wait for him in the reception room, as he felt too sick to come to the doctor's house. Dr. Crisp was surprised to find this man literally festering with smallpox in its most virulent stage, the pus oozing and dripping from the ruptured pustules all over his face, arms and body. He reported that he had been very sick at his boarding house for the past five or six days, yet up and around for most of the time. His landlady had urged him to see a doctor, but he had assured her that the "breaking out" would soon be better; the fever went down and the backache had become less severe, but the "eczema," as he called it, seemed to be growing worse. So, attracted by the glowing advertisements in the daily papers, he sallied forth to one of these temples of healing, a drug-store, "where a radical cure was kept for every old disease and the medical and scientific world was being set on end by the startling miracles daily performed."

"The druggist," says Dr. Crisp, "looked him over, covered as he was with confluent pox, dripping with pus, and told him his blood was badly out of order. All he needed was a blood tonic! It would make a new man out of him in a week. This he gave him, for one dollar, with minutest instruc-

tions how to take it, and be at once restored to health."

As the doctor points out, this man when he wended his way home, was more dangerous than a mad dog. If any physician had been guilty of this criminal neglect he would have been promptly prosecuted. And yet this druggist, though undoubtedly violating the spirit and probably the letter of the medical practice law of Colorado, was apparently exempt from punishment.

To be sure, this is an exaggerated case. Not many cases of smallpox come to the druggist for treatment. But it is certainly true that he treats thousands of other cases of which he is equally ignorant and with results which are equally disastrous. Take gonorrhea, for instance. It is a well-known fact that by far more cases of this disease, in their early stages, go to the druggist, than to the physician. Practically every drugstore in the land has a favorite injection, borrowed from the prescription file, and a favorite "clap" mixture, which are dispensed to all who ask for them. And yet gonorrhea annually destroys more lives, causes more wrecking of health, ruins more homes in one year than smallpox does in a decade. And thousands of cases of stricture, gleet and other forms of chronic gonorrhea, the sequels of ignorant and ill-advised treatment, leave the druggist's doors to scatter broadcast their crop of sterility, permanent invalidism of husband and wife, blindness and death.

Has anyone ever heard of a druggist being prosecuted for counter-prescribing, for practising medicine illegally? And yet, mind you, the druggists through their journals and societies are now on the war-path with a movement to *compel* the physician to prescribe, self-dispensing to be forbidden by law. There is no movement, among the druggists, so far as we know, to restrict or forbid counter-prescribing. No one has suggested making this illegal, or even enforcing against the practice the laws which are already on the statute books. Why not?

Candidly, doctor, what do you think of all this? Do you propose to sit still and let *your* business interests, as well as your practice, be transferred bodily to the druggist?

Or do you propose to defend your own rights and your patients' welfare? It is time you were thinking about these things—and thinking with your eyes open to what is going on about you.

All the means of action—
The shapeless masses, the materials—
Lie everywhere about us. What we need
Is the celestial fire to change the flint
Into transparent crystal, bright and clear.
That fire is genius.

—Longfellow.

THE COUNTRY DOCTOR

There are many high (and dry) medical circles in which, even if nothing is said, a mild deprecatory air prevails when a country doctor is spoken of or lauded; while impatience, if not contempt, is hardly restrained when their opinions are quoted as being worth anything.

How often we hear the expression, "Oh, he is nothing but a country doctor." One or two of our big medical journals ignore or refer slightly to the experiences of country doctors, particularly as to their ability to diagnose and treat disease.

The combined voice of the schools and their teachers, and that of some of the higher (?) luminaries in favor of a scientific training, have great weight among certain members of the profession; and a large number of medical men feel somewhat uneasy at dabbling in any lore that does not bear their *imprimatur*, or using any remedy not recommended by *them*.

It is thus that eminent men may become hindrances, in proportion to their position, if they do not possess that true greatness which can readily recognize as truth something which they may have never taught or been taught themselves. It is thus, also, that centers of education may retard knowledge in certain branches of real professional value, but which are as yet not officially recognized by them.

Such professional "drags" have recently been much in evidence at the meetings of our learned societies. Their influence is often of use, but it is very often detrimental to progress.

These men are for the most part specialists in some certain line of work, and as a rule have not the breadth of character and all-round professional skill of the country doctor of the better kind.

The average country doctor is not only a practical man, but probably has, on the average, as good a medical education as some of our would-be authorities in our great cities. The knowledge the country doctor has is valuable, for it has been gained largely at the bedside, and not principally from textbooks. He is practical, not theoretical. The mere theorist rarely evinces practical wisdom; and conversely, perhaps, the practical man rarely displays a high degree of speculative ability.

The possession of brilliant intellectual qualities in ninety-nine cases out of a hundred proves a bar rather than a help to a medical man.

If you try to cut a stone with a razor, the razor will lose its edge and the stone remain uncut. A very high education, again, unless it is practical, too often unfits a man for contest with his fellows. You have rifled the cannon till the strength of the metal is gone.

There is reason to fear that in the case of not a few of our eminent physicians the mind is so rounded and polished by education, as not to be practical or energetic, in more than one, if indeed, in any one faculty. They become so symmetrical as to have no point; while in good, sensible, general practitioners, not thus overtrained, the sense of deficiency and of the sharp, jagged corners of their knowledge lead to efforts to fill up the chasms, and renders them at last far more learned, from a practical point of view, and far more successful doctors than the smooth, polished specialist, author or teacher, who has just enough theoretical knowledge or that pertaining to his narrow specialty to prevent the consciousness of his ignorance.

It is time we listened to the country doctor. He can give us many invaluable points on disease and its treatment. Let it be remembered, by one and all, that the general practitioner throughout the country districts of our

land is not the poor relation of the medical family by any means.

A strenuous soul hates a cheap success.
—R. W. Emerson.

THE SUCCESS-VALUE OF DECISION

If there is a man on the face of this earth to whom decision is essential, it is the doctor. Many a time, when going into the sick-room the faces are lifted up to us in anxious interrogation; the calm confidence which proceeds from assured knowledge, the certainty of the conviction in our own minds that we can take the patient through his sickness successfully, is one of the principal elements in accomplishing this object.

It is a great thing in our favor when we can say absolutely and unqualifiedly, Yes, or No. When we can say he will recover, when we can say he will be on his feet by tomorrow night, every prediction which we can confidently make goes to our credit as an aid in securing its own accomplishment, provided we do make good. A confident, favorable diagnosis which does make good is of inestimable value to the doctor.

Suppose you don't make good, what then? People don't always expect it, but they do appreciate our trying. The doctor who takes off his coat, rolls up his sleeves and goes in with all his might to fight for the patient's recovery is the man who carries the people with him. Even if he fails they can say: "Well, there never was a man who worked harder than he did, and he deserved to succeed at any rate. That is the doctor for me; he leaves no stone unturned and no trouble untaken in order to save his patient."

Darwin tells of a case in which he once gave a hopeful diagnosis, when a much better qualified physician came in and immediately said that the patient would die. He did die; but to the astonishment of Darwin the family retained him as their adviser. On asking them why, they said that he had "tried to cure the patient, but that the other man had given him up from the start."

It is not the least of the advantages of the active-principle movement that the certainties which they afford the doctor in therapeutics allow him the privilege of positive utterances. He can speak positively of that which he knows will positively occur; and however slight the matter may be, so far as its bearing on the case is concerned, every positive prognosis coming true makes for the doctor's benefit, giving the patients that confidence in him which means so much in the fight. It is well for us to cultivate the habit of positive utterance; and more than this, the habit of that knowledge which enables us to do so conscientiously. If you can not conscientiously say yes or no, you can surely reply to "Doctor, will the patient get well?" with "I do not know, but if death wins in this fight he will have to work for it." That is not so good, but still it will often go.

THE PHARMACISTS' VIEW

In *The Pharmaceutical Era* for August 22, among the editorials, we find the following remarkable suggestions:

"Pharmacists, for self-protection, should qualify as physicians. Many have done so and many others can give and do give doctors' advice of value, based on their own knowledge and what their friends ought to know; and there are millions of cases where, with friendship aside, a better-posted man at the black closet, as we sometimes call the poison dispensary, *has taken the law into his own hands and dispensed what ought to have been prescribed.*"

Doctor, did you know this?

Further along he says: "Cases have proved that in practice a good pharmacist knows more about the medicinal value of his stock than does the average physician. It is the physician who ought to acquire the knowledge of the drugs which he prescribes." Now, looking at this from the physician's viewpoint, can we be blamed for adding: "Therefore, Doctor, keep and dispense your own drugs."

Are we quite ready to have the pharmacist censor our prescriptions and substi-

tute what *he* "thinks the patient had better have?" Of what earthly use are we, then, in the case?

This article is important, however, as illustrating the viewpoint of the pharmacist. If that is the view the pharmacist takes of our relations to the case and his own, the sooner we understand it, the better for us.

HOPELESS CONSERVATISM

So far as feeling any animosity toward the gentlemen who are so strenuously endeavoring to revive galenic therapeutics, we look upon their well-meant endeavors with appreciation and commiseration. They are again trying to accomplish the impossible, that of sweeping the ocean back, or stopping the advance of human progress and restoring a condition of things that is hopelessly past. However desirable it may seem to us to reestablish some conditions which the world has swept by, it is always impossible.

To us now it seems an incredible thing that the Romans of the medieval ages should have taken the materials of the Coliseum and the temples of the gods for building material, for their meretricious palaces. Nevertheless the conditions warranted this. The gladiatorial shows in the amphitheater of the Coliseum had ceased. Men no longer worshipped in the heathen temples. They were therefore practically useless in the every-day life of the people of that time, whereas houses they could live in, and houses they had to have. The same considerations of reverence which we now feel toward these relics of antique times did not impress themselves upon men of that age. Instead of that, they had the very natural desire for homes; and since the Coliseum and temples were useless to them in their every-day life, they took the materials for their homes. It was a perfectly natural thing to do. So every age makes use of the buildings of the preceding ones, as materials for its own edifices.

The galenic medication has been tried fully and completely, and found wanting.

It was the worthlessness of these preparations that made the therapeutic nihilism of the present day. Mr. Hallberg and his friends have before them a beautiful ideal, that of the perfect pharmacy, perfectly ethical, preparing in an ideal manner the mixtures for the perfectly ethical physician's use. But it will not do. The polypharmacy on which the work of the pharmacists is based is becoming a thing of the past. The old-fashioned drug medication has gone by the board, and cannot be revived. If drug medication is to exist in the future it must be a better drug medication than that of the past, more certain, more effectual, and its application in the sick-room must be based on more scientific principles. We must either lay aside drugs entirely, or use the single remedy for single indications in a scientific manner. The physician must do what he has always pretended to do, study the action of his medicines in the sick-room, and regulate their use by the clinical aspect of the case presented to him at each visit.

Necessarily, the part of the pharmacist becomes smaller when he is restricted to dispensing single drugs instead of commingling several of them. This cannot be helped. It is the way of the world. Progress cannot stop for individual interests, any more than the building of wharfs on which ships can unload their cargoes could stop because they interfered with the profits of the lighter men.

The task of these gentlemen is a hopeless one; and as is invariably the case, we are not surprised that the consciousness of failure should induce in them a feeling of resentment toward those who have demonstrated this failure. We do not blame them. This also is the way of the world and to be expected. But the truth must prevail, whatever the opposition.

PULMONARY VASOCONSTRICTORS

One of the most perplexing problems before the physician of the day is the control of the capillary circulation in the lungs. We know now that ergot and digitalin

contract the capillaries of the general system but do not exert this effect upon the vessels of the pulmonary system, the latter not having any muscular fibers upon which these drugs can act. In fact, when we have administered these drugs, for the contractile effect upon the vessels of the general circulation, they actually force more blood into the yielding capillaries of the lungs. Hence in pulmonary hemorrhages they would only increase the difficulty instead of relieving it. This has reduced us to the use of remedies which relax the capillaries of the general system, in cases of pulmonary hemorrhage, in order that the pressure within the lungs may be reduced by withdrawing the blood into the general circulation.

Wainwright has said that ferric salts contract the pulmonary capillaries. The eclectics say that lycopin does this specifically, exerting the same power over the capillaries of the lungs that ergot does over those of the aortic system. Hence, they have recommended lycopin highly in pulmonary hemorrhages. It is doubtful, however, according to their own account, whether the action of lycopin is that of a vasoconstrictor in the pulmonary circulation or a vasodilator in the general circulation. Thus they state that it is an arterial sedative—promptly reducing undue force and frequency of the pulse, without, however, depressing the heart. It would therefore rank with veratrine and aconitine, rather than with digitalin and its congeners. As with vasorelaxants in general, functional diseases of the heart marked by irritability and irregularity or by oppression, hypertrophy and dilation, sometimes markedly improve under its influence. In endocarditis and pericarditis it is best to quickly reduce the inflammatory action. Its controlling influence over the capillaries is said to be promptly apparent when exhibited in congestion, invigorating and giving tone to the capillaries generally. It is said also to improve the digestion, not only in tubercular, but in drunkard and malarial cases. Given to diabetics the quantity of water and sugar excreted is

lessened markedly. It has been found especially valuable in the early stages of phthisis and has also been recommended in exophthalmic goiter, where it evidently plays a part somewhat similar to gelsemine and veratrine. The specific indications given by the eclectics are: A tonic cough with frequent pulse and high temperature; hemorrhage with frequent pulse; chronic diseases with frequent feeble pulse; irregular, rapid and labored heart-action, the skin white and extremities cold; passive capillary congestion involving the lungs with a tendency to hemorrhage; disease of the kidneys with profuse urination, the urine containing sugar; the liver showing various abnormal symptoms; catarrh of the mucous surfaces.

The best preparation we have been able to find is lycopin, a concentration or purified extract. The remedy seems deserving of further study. If it does what is claimed in controlling the capillary circulation of the lungs, we have here a remedy for which we have long sought and which we greatly need.

THE BIG STICK IN PRACTICE

Many years ago Anstie, in his admirable little work on "Neuralgia," called attention to the fact that in the treatment of the paroxysm better results could be obtained if the medicines given were administered with a certain degree of boldness, in full doses at once, to take the disease as it were by storm; whereas, if you act timidly, the system would become habituated to the medicine, and it would have much less effect.

In the days of our polypharmacy we were accustomed to give a powerful mixture of zinc phosphide, strychnine arsenate, quinine arsenate and iron arsenate, in full doses, and many times had the pleasure of seeing an obstinate neuralgia broken up, which had resisted well-directed attacks by excellent practitioners.

This is good practice today, for we are by no means out of the woods of polypharmacy. In fact, even at this late day in

the history of the medical profession the application of the single remedy is in its infancy.

Although it is almost half a century since Anstie wrote this book, we can see now that the reasons for his advising this boldness was his use of active principles; for Anstie's great remedy in neuralgia was strychnine, and to the certainty and accuracy of this remedy may be ascribed his views and his success. In many other affections besides the neuralgias the same principle holds good; and since we have now remedies on which we can depend, whose action we know with certainty, the application of this principle is much easier and more extensive than it was in the old days, when uncertainty as to the nature and action of the medicament led to timidity in its application. Since we know exactly what a remedy can do, we are free to apply it with the utmost boldness, and many a success results therefrom which would have otherwise proved a failure. The use of active principles leads therefore to decision, to vigor, to promptness and to energy of application; and to a corresponding degree of success.

For in every walk of life, in every occupation to which humanity may be devoted, the same principle holds good, that the man who strikes strong and hard wins success where the timid will fail. If you ever watch a number of boys diving at the swimming pool, you may note that those who understand it are confident, and make beautiful dives, cleaving the water in exactly the right manner; while the first one who comes along that is unaccustomed to it and timid, stops short in his leap, and instead of entering the water in the proper manner usually comes down flat upon his abdomen.

In boldness lies success, in timidity lies peril and failure.

There is a difference between boldness and rashness. Boldness has a foundation of knowledge, rashness is rushing into the unknown; and that is just the difference between the bold use of active principles and the rash use of the galenics.



THE MODERN TREATMENT OF PNEUMONIA

The scientific basis of this method of treatment and how it is carried out; the remedies used and their exact application to disease conditions. Why this method succeeds

By WALLACE C. ABBOTT, M. D., Chicago, Illinois

GR^{EAT} as have been the advantages accruing to the medical profession from the discovery and popularization of the germ theory of disease, it is questionable if it has afforded anything whatever in the way of improving the methods of practice, or the results obtained in the sick-room. In fact it is probable that it is just the other way, and that an enormous harm has been done to the physician as a clinician, by too exclusive study of the germ theory and too great dependence upon it. It is one thing to determine that any particular specific disease depends upon a certain microorganism for its causation, but an entirely different thing to attribute to that microorganism exclusively every phenomenon presented by the disease.

And yet this is exactly what has been done. The physician has been led away from the study of the patient to the study of the microorganism. He has forgotten the all-important fact that, even if the microorganism be the cause of the disease, it nevertheless acts in and through the human economy, and the principal thing for his study is the derangement of physiology.

Typhoid Fever Not All Due to the Typhoid Bacillus

Take for instance the study of typhoid fever. We know this is due to the typhoid

bacillus, but to reason from this that every phenomenon presented in a case of typhoid fever is directly due to the bacillus, is illogical and absurd. We know perfectly well that in all fevers there is a suspension of the secretion of the digestive fluids; we know that in febrile diseases these fluids act to a certain extent as antiseptics; we know that under the influence of increased heat and moisture, and the presence of decomposable organic matters in the alimentary canal, the action of the microorganisms which always flourish there is enormously increased, and that many of these microorganisms may become virulent which are not so during health. Their multiplication is greatly furthered and their manufacture of toxins is increased.

Moreover, the rapid evaporation of water from the surface of the body leaves the blood thicker and increases the tendency to absorption from the bowels into the blood; consequently the toxins manufactured in the alimentary canal by microorganisms there, not the specific microorganisms of typhoid fever but innumerable other ones, are rapidly absorbed into the blood; and circulating there they cause toxemia, which is, as is evident, but indirectly due to the typhoid bacillus. The consequence is, that in every case, not only of typhoid but of every essential fever, a certain proportion of the symptomatology of the disease is furnished by the action

of the toxins absorbed into the blood from the bowels and circulating therein. These toxins act disastrously upon the most delicate tissues of the human body, namely, those of the nervous system; hence we find that derangement of the nervous system occupies a prominent place in the symptoms of every fever, no matter what may be the nature of that fever.

Gastrointestinal Complications Make Pneumonia More Dangerous

This is the case in pneumonia as well as any other disease; and it has long since been established that pneumonia is particularly dangerous when there is a disorder of the stomach and bowels attending, whether this be nausea and vomiting, or diarrhea or tympanites. All of these, in fact every disorder of the alimentary canal, seriously increase the danger of pneumonia.

It follows, therefore, that *to empty the alimentary canal and disinfect it, so far as is possible for us to do so, is one of the principal indications in the treatment of pneumonia, as it is in every other fever known.*

But the specific microorganisms of every febrile disease are now known to act by increasing the toxins in the blood by a specific toxic element derived from their own vital operations. From both these sources, therefore, we have a vast increase of the toxins which are always found in the blood, both as to their number and to the quantity. The safety of the individual depends upon the rapid elimination of these toxins. Hence it is always an indication in the treatment of pneumonia and of all fevers to keep the eliminant apparatus actively at work, and through the bowels, skin and kidneys, to carry the toxins out of the body as rapidly as possible. If this is done successfully, and the toxins are carried out of the body before they have time to exert a disastrous effect upon the powers of the human system, the patient will recover. If the toxins increase more rapidly than they can be eliminated, the patient will die. Hence, it occurs in many cases that the intelligent application of eliminant remedies will turn the scale in favor of the patient and against the disease.

You will see that this is simply utilizing the natural powers of the body, and is not directing any specific remedy against the specific microorganism at all. These may be held to be the fundamental principles in the treatment of any and all fevers, of every description.

Action of the Toxins Upon the Lung

We deduce a third indication from the study of the direct action of the toxins produced by the microorganisms upon the diseased part, that is, the tissues of the lungs. It has long been recognized that the first aberration from normality in any case of pneumonia consists in an increase in the quantity of blood present in the lungs. This blood increases first in the capillaries, which become engorged, after a time transudation occurs through the vessel-walls, which may give way also, and an exudation takes place into the air-cells and the smaller bronchioles. The white corpuscles pass through the walls of the capillaries by a process known as diapedesis.

Now, it seems obvious that if the process is arrested in the first stage, that of engorgement of the blood-vessels, if these are unloaded and the surplus blood carried away, the second and subsequent stages will not appear. In other words, if we lessen the engorgement of the blood-vessels to such an extent that there will not be that pressure within them which results in the transudation of serum and other substances through the walls of these vessels, there will be no such transudation. This is a simple mechanical law, and it had been observed and put in practice many years before the microorganism and its toxins were discovered.

There are two ways in which this object may be theoretically accomplished: in the first, by increasing the tonicity of the dilated vessels in order to increase the resistance which they offer to the heart in forcing blood into them; the second is by dilating the vessels through the rest of the body, in order to allow the blood to flow back into them and out of the engorged lungs.

It is obvious that in this disease, as in fevers generally, the bulk of the blood itself

is not increased, but simply its placement is altered. Some of the blood is displaced; and just as great as is the increase of blood in the lungs above the normal amount, to such a corresponding degree there is a scarcity of blood elsewhere. In other words, when the blood-vessels of the lungs are engorged and dilated, some other vessels in some other parts of the body have not as much blood as is normal, and consequently are contracted.

Accordingly, there have always been in evidence two schools of practice, one of which gave remedies which were known as sedatives. These relax vascular tension, acting upon blood-vessels whose caliber has been reduced, and by dilating them allow more blood to flow into them and out of the engorged lungs.

The other school of physicians employed remedies known as stimulants or tonics, which increase vascular tension; and these remedies, acting upon the engorged vessels in the lungs, forcibly contract their caliber, forcing out the blood from them into the other vessels of the body.

Each school reported good results, and it was long a mystery how it was possible that physicians using remedies of such diametrically opposite qualities could still achieve such good results. This was still more mysterious, since one might say that if a disease could be cured by stimulation, or by its opposite, sedation, it must be a disease which did not require medicine of any kind very much, and that the use of neither one nor the other ought to give still better results. This however, did not prove to be the case, for it was found that those who gave no medicine at all, occupying the middle course, did not get as good results as those who actively used either the stimulants or the sedatives. A careful study of the mechanics of the case as above given shows why this must be true.

Can We Relax and Tonify at the Same Time?

Of late the idea has been advanced that it is possible to accomplish both of these indications at once. The reason which

leads up to this point is as follows: Each cell of the human body exercises a selective action upon the material supplied to it indifferently by the blood, each cell selecting from the blood such material as it requires to restore it to a state of normal equilibrium. This we know to be the case, from the fact that the bone-cells select from the blood the materials of bone, nerve-cells select the material necessary for the evolution of nerve-power, muscle-cells select the material necessary for muscular power; and so each cell of the body selects from the blood which circulates to all cells alike just such material as it needs. It requires, therefore, no special imagination to infer that the diseased cell would select what it needs, whether this may be what we term a food or what we term a medicine. For the matter of that, no one has ever yet succeeded in defining exactly the difference between a food and a medicine.

It follows, then, that if this hypothesis be correct, the cells of the pulmonary vessels which are deficient in tone will select the tonics which are given through the blood, while the cells in the blood-vessels in the remainder of the body which are unduly contracted will select the sedative. Consequently, if we give a tonic and a sedative together, each of the circulatory areas will select that which it needs and reject the rest.

The Remedies Which do the Work

Those who practice upon this supposition employ two great sedatives and two great tonics, the former being aconitine and veratrine, the latter digitalin and strychnine. These are the active principles of four plants. They are used instead of the plants themselves, or the ordinary preparations from them, for these reasons: Plants usually contain active principles, more than one in number, and varying in proportions. Under some conditions there may be scarcely any active principle at all, under others a very great amount. Sometimes one active principle is unduly developed and sometimes another. The consequence of this is that the action of the ordinary plant is variable both as to quality and quantity, and the

physician employing these must to a certain extent make experiments every time that he commences to use a new preparation.

Unfortunately, in the treatment of diseases like pneumonia there is no time for experiment. The time in which remedies can be applied with advantage is very short, for after exudation has taken place the matter assumes a different aspect. It is in the earlier stage of the disease, which has not yet gone beyond the point of simply dilating and engorging the blood-vessels, that this treatment is applicable; it is at least then that the best results are obtainable from it.

Why the Active Principles are Used

By the use of the active principles of the plant instead of the ordinary tinctures and extracts the physician has a dependable remedy; its action is invariably the same, both as to quantity and quality; there is no experimenting with it; he deals with a certainty as to its action, the only uncertainty being as to the reaction upon the patient. If, to begin with, he is uncertain as to what the exact action of the remedy is going to be, he has two uncertainties to deal with, and he surely must be a skilful physician to deal with these two and yet do good to his patient. But when he knows exactly what his remedy is going to do, it is up to him to use his skill as a physician to detect the condition in the patient in which exactly that action is needed, and then to apply his remedy in exactly the right way, and in exactly the right dose, to procure precisely the results he wants, no more and no less.

Those physicians who have tried this method and these remedies, after a life-time of practice, are unanimous in stating that for the first time in their lives the practice of medicine has become a delight to them.

[The Method of Application]

Those who use these remedies in pneumonia generally begin by combining the sedative aconitine with the tonic digitalin. These two form the basis of the prescription. In cases where fever is high, the pulse rapid, the vascular tension excessive and the eliminating organs below the mark, they usually

add veratrine, which relieves, to a certain extent, all of these conditions. This combination is known as the "defervescent compound." However, if the vitality is low and the heart feeble, the patient being unduly depressed by the toxins generated by the disease, instead of veratrine, strychnine is added, since strychnine tends to relieve all these morbid conditions. This (aconitine, digitalin and strychnine) is the "dosimetric trinity."

Frequently the physician will select and try the combination containing strychnine, the "trinity," at his morning visit, on account of the debility manifested by the patient; but when he makes his next visit it will be found that the strychnine has done its work so effectively that the patient shows even a great vascular tonicity and higher power than is necessary, and it is advisable to substitute the other combination, containing the veratrine—the "dosimetric compound." In this way the physician may alternate between these two as the patient requires, giving veratrine whenever there is excessive vascular tonicity, and strychnine whenever there is a deficiency; and in this way skilfully pilot his patient along through the dangers to the safety of recovery.

The Backbone of the Treatment

The use of these four remedies constitutes practically the backbone of the modern treatment of pneumonia. Other remedies are added as other indications show them to be needed. One that is frequently added is arsenic; the reason for this is, however, not well understood. A careful study of the action of arsenic upon the human system shows that its leading characteristic is the favoring of fatty degeneration.

The products of diseases, like inflammation or fever, are much more feeble than the normal cells of the body; consequently the medicament which acts destructively will act more quickly and in smaller doses upon the new products of disease than it will upon the normal cells of the body. It is believed, therefore, that by the administration of arsenic we may by careful regulation of the dose find one that will favor the degeneration,

solution and absorption of the morbid products of the disease, and yet be too small to affect the normal cells of the body. If we succeed in this, the disease passes off more quickly than it would otherwise do, and there are less results remaining to render the convalescence long and tedious. Strychnine is therefore generally used in the form of the arsenate, to obtain the effect of both these remedies at the same time.

The Variant Treatment of Pneumonia

This is usually termed the dominant treatment of pneumonia. Such special conditions or symptoms as are shown by each individual case may require other remedies which, being additional to the other, are called the variant treatment. There may be no variants needed, or there may be any one of a great variety of remedies, since under the term pneumonia is comprised a vast number of cases, differing as widely in their general condition as black does from white. One patient may be wildly delirious and exhibit such tremendous physical strength that four or five powerful men will be unable to hold him in his bed. Another patient may be so extraordinarily feeble that a single pillow under his head may raise it to such a degree as to cause death, the heart being unable to lift the blood to the brain that far.

A Recapitulation

To recapitulate, we would say that the modern treatment of pneumonia consists, first, in clearing the alimentary canal and rendering it aseptic; second, in stimulating the eliminant apparatus to the full exercise of their activity to carry off the toxins generated by the disease; third, in regulating the vasomotor conditions with the utmost nicety, with the object of checking the progress of the disease in the first stage, and thereby rendering the second stage impossible; fourth, sustaining the patient until the disease has run its course.

It will be seen that this method is absolutely scientific in every sense of the word, that it takes into account the modern investigations into the nature of microorganisms and of their action on the human

economy. But it goes beyond this, which the enthusiast in bacteriology does not; and considers the manner in which the microorganisms and their toxins act on the living cells in the human system, and exert their deleterious influence upon the patient. It must be remembered that, no matter how deadly their poison may be, it can only act through the living tissues. Inject strychnine or prussic acid into a dead man, and it will have no effect; it can have no effect unless there are living cells through which it can act. The success of this method and of these remedies is so great that it is impossible to find a physician who employs them who is not optimistic in pneumonia. The people who say that "there is no treatment for pneumonia," are exclusively those who have never given this method a trial. The profession is therefore divided into two great camps, those who insist that there is no treatment for pneumonia, and refuse to try, and those who are using the modern methods, and insist that they are curing their patients.

Strictly a Physician's Method

The progress of these new methods and remedies has been hindered by the strictly ethical manner in which they have been presented to the profession. In the first place, their advocates steadily refused to call it a new "school" of medical practice; in the second place, no description of these methods has ever been presented to the lay public, the physicians who have used them keeping them strictly to themselves. Other objections which have hindered the spread of these doctrines may be found in the peculiar habit of the medical profession today, the larger part of which seems to be simply crazy on the subject of surgery and unable to see any benefit in anything else. In this unfortunately a number of the laity agree with them.

But little if any importance is to be attached to the objection on the part of the physician, that by the new method their patients are cured so quickly that their bills are exceedingly small! To the credit of the medical profession be it said that

this has practically no weight whatever with them. When the public, however, learns to understand that there are methods of treatment by which a long and tedious illness may be avoided, the disease being

broken up at the start by a few well-directed efforts, there will be a popular demand for this alkaloidal treatment which cannot be resisted on the part of the medical profession in general.

PNEUMONIA AT NINETY-FOUR: RECOVERY

The remarkable results following the use of the alkaloidal method of treating this disease in a patient of advanced age

By ROBERT S. BRICE, M. D., Keota, Iowa

PATIENT was taken ill about midnight. I saw the case at 12 o'clock the next day, twelve hours after seizure. The patient is ninety-four years old, a retired farmer, and had been in good general physical condition for a man of such advanced age.

When first seen I found my patient very seriously ill, temperature 104°F., pulse 105, respiration 72, cough almost constant, with expectoration of large quantities of thin bloody sputum, lips cyanotic and face blue; bowels somewhat constipated and urine scanty.

Physical examination revealed practically entire consolidation of the right lung and some congestion of the left. Regarding the case as extremely serious, and with almost no chance of recovery, I at once called for counsel. Dr. Droz was chosen and came at once.

After going over the case with him, we informed the family that the patient had a very severe attack of acute lobar pneumonia, with extremely slim chances of recovery, and in our joint judgment, none at all, considering his condition and age.

How the Patient was Treated

Notwithstanding all this, I determined to give my patient the benefit of my long experience in the treatment of pneumonia with active principles. I at once gave together calomel, gr. 1-6, and podophyllin, gr. 1-6, every hour until one grain of each was taken. Two hours after the last dose

I gave saline laxative, repeating in one hour. This produced copious stools. I then gave the intestinal antiseptic (the sulphocarbolates), two tablets every two hours until the stools were odorless, then one every two hours, using enough saline laxative every day to keep the bowels free.

As the patient had a hard, corded, wiry pulse and hot, dry skin, I at once commenced to give defervescent compound No. 1, (aconitine amorphous, gr. 1-134, digitalin, gr. 1-67, and veratrine, gr. 1-134) every half hour. I gave this to restore the normal balance of the vasomotor system. A pulse as above described indicates a spasmodic condition of the arterial system, vasomotor spasm, with a corresponding vasomotor paresis somewhere else. In this case it was in the lung, hence pneumonia.

The aconitine dilates the arterioles, softens the pulse and equalizes the circulation. Veratrine acts in the same manner, with one valuable addition, opening, as it does, every excretory organ of the body, which is of vast importance in acute diseases of a grave nature, while digitalin sustains the heart and tones up the dilated blood-vessels of congested areas. The administration of the defervescent compound was commenced at about one o'clock p. m., and by 7 p. m. the patient was perspiring freely, the temperature was reduced to 101°F., and respirations to 36. I then gave the defervescent compound every hour.

At this time the pulse was softer, considerably so, and the cyanosis almost en-

tirely gone, the patient breathing easy. The bloody sputum was less and cough no longer troublesome. The patient slept considerably during the night, my orders having been not to disturb him for the purpose of giving medicine, if sleeping.

Next morning at 8 o'clock the temperature was 99.5°F., pulse 90 (character almost normal), respiration 36, cough loose but sputum not bloody, cyanosis gone, and general condition of patient was found to be very favorable. I continued defervescent compound every two hours. To keep the cough loose I gave ammonium chloride in small doses. To sustain the heart and respiratory system I gave two tablets of

triple arsenates with nuclein every two hours, adding strychnine nitrate, gr. 1-40, to each alternate dose. In forty-eight hours the temperature fell below normal. I then withdrew the defervescent compound, continuing the supportive treatment, with intestinal antiseptic and saline laxative, as above outlined.

The patient went rapidly on to full recovery and was discharged on the eighth day, at which time he was up and about the house. At this writing several months have gone by and the old gentleman is now enjoying exceptionally good health for one of his age.

THE TREATMENT OF PNEUMONIA IN CHILDREN

A rational method of handling bronchopneumonia and lobar pneumonia during the early years of life, one that is likely to be as successful in the hands of other physicians as it has been in those of the author

By GEORGE H. CANDLER, M. D., Chicago, Illinois

IN this article I have not attempted to advance theories or enter into a scientific discussion as to the action of each remedy suggested. It is assumed that the average man is fully able to recognize the differing conditions which present in each disease (and in every case) and thus will not fail to give the "right remedy at the right time." It is also taken for granted that the case is seen *early*, before marked pathological changes have occurred. When charge is assumed later, the medication called for at that particular stage of the disorder will of course be selected.

The Fundamentals of Treatment

The physician practising rational therapeutics does not expect a "set" treatment for "bronchopneumonia," but he often does desire to know just what remedial agents will prove most effective. In all these cases it is essential to have an empty, clean, and actively absorbent intestinal tract, an active skin and equalized circulation. The patient must be able to breathe fresh air at

a safe temperature, must have his vitality sustained and his resistance to disease augmented. If we exhibit intestinal and systemic antiseptics, increase leucocytosis and maintain, as nearly as possible, normal circulatory conditions—forcing elimination meanwhile—we are better able to meet promptly and effectively, with the proper remedy, such pathological conditions as demand our attention. If we merely treat "a clinical picture" along the lines laid down by "authorities" (who did not dream of autointoxication or even suspect phagocytic activity), we must not expect positive results.

All diseases have a beginning. Every "named malady" proves to consist of many pathological processes, the mere existence of one giving rise to others. Thus if we fail to restore metabolic order *early*, we must expect an infinitely more strenuous fight later—when every process is deranged and almost every organ is under strain. Those who appreciate this fact and promptly meet the *abnormal conditions present* "about

disease," because they render further complications impossible. It is not claimed that it is possible to walk into a patient's chamber and "abort" a fully developed double pneumonia; that would be absurd, but it is possible (and comparatively easy) to correct the first derangements and place the system in such a condition that a normal state of affairs must obtain.

Bronchopneumonia: Etiology and Symptoms

Bronchopneumonia is the most dreaded disease of the cold months. Children under six years of age are the most frequent patients. Measles, scarlet-fever, ileocolitis, whooping-cough, and even a neglected bronchitis predispose to and may precede bronchopneumonia. Pleurisy often complicates matters in the later stages. No single microorganism can be regarded as the causative agent. Streptococci, pneumococci and staphylococci are found alone or together. If extensive consolidation exist and the fever is not excessive, the pneumococcus probably is present; if limited (and scattered) areas are affected—and the disease is secondary—streptococcic infection may be presupposed. Males suffer primarily more than females; the inhabitants of "homes," asylums and crowded tenements are especially subject. The course is erratic, one portion of the lung may clear up and another become involved; one lung may suffer or both (this is usual) and hemorrhages may occur. Peculiarly enough, when one side is affected it will usually prove to be the right apex: when the disease is bilateral, the lower lobes suffer most.

It should be remembered that at first there is a general congestion which gradually diminishes, leaving localized areas of consolidation; these usually are small but may coalesce so that almost an entire lobe is involved; not infrequently the process is similar to that seen in lobar pneumonia.

There are, however, in most cases, well-defined differences. In bronchopneumonia the smaller bronchi are filled, in lobar pneumonia they are not. As a matter of fact the treatment is practically the same but it is desirable to study the pathology of

each disease so as to make a clear diagnosis. The prognosis is not good in very young children; after the first eighteen months of life it is favorable.

Symptoms.—Usually (always in secondary form) the disease comes on slowly. The child coughs; there is fever (at first 100° – 101° F.), a rapid pulse and quick respiration; the face is flushed and every evidence of congestion is present; nervous disturbances are usual, and more or less dyspnea will be noted. Slight cyanosis may be present.

In most cases the pulse-rate, early, will be 130 to 150 per minute, and respiration 50 to 60. Later, as the temperature climbs to 103° – 105° F., the pulse will run 160 to 180 and the respirations average 70 or 80 per minute. This is not a comfortable condition!

Sometimes we will note an *abrupt onset*—cough, cyanosis, marked dyspnea, and a temperature of 103° – 104° F., rapid pulse, and shallow, quick respiration. The evidences of profound systemic shock are abundant. The breathing is roughened quite markedly—generally over one side—and pain makes the child extremely fretful. These are the worst cases of all, requiring prompt and effective treatment. During the *stage of congestion* (we may not see it) there will be lessened respiratory sounds over the affected area, with minute, crackling rales; coarse bronchial rales are heard over the other portions of chest.

Consolidation will be accompanied by dulness; there are bronchial breathing, crackling, increased fremitus, and loud bronchial rales. When small areas (with sound lung between them) are consolidated, we shall find very limited localized dulness; there are crackling rales, bronchovesicular breathing, and voice sounds are clearly transmitted.

In making our *diagnosis*, we must take into consideration the mode of onset. In lobar pneumonia it is sudden; the fever in bronchopneumonia is irregular and rales are present throughout; in lobar pneumonia they exist early and during the stage of resolution only. "One lung" is the rule

in lobar pneumonia, in bronchopneumonia both are generally affected. Dulness is not marked in bronchopneumonia; it is in lobar; resolution is slow in the former, rapid in the latter form. Relapses are quite frequent in bronchopneumonia, but rare in the lobar.

The Treatment of Bronchopneumonia

This means everything and must be carefully thought out. First and foremost, *clean out* the alimentary tract and keep it clean. Even before making a diagnosis exhibit calomel, gr. 1-10, with podophyllo-toxin, gr. 1-12, every half hour till six doses have been given. Follow with a saline laxative draught. Then aconitine, digitalin, strychnine, of each six granules, water, 12 teaspoonfuls. Give 20 to 30 drops every hour till congestion is controlled and fever falls. Paint the chest with guaiacol, spread lint with carbenzol and cover thorax with it, over all; fit on a snug flannel or cotton-batten-lined shirt. Or apply the glycer-inized pastes of the market, not too hot or too thick—the child cannot breathe properly under a load.

If the child is older than one year, and strong, substitute veratrine for strychnine at first, but change to the latter at the very first sign of asthenia. I alternate the two. Cactin (gr. 1-67) promptly if the heart wavers—repeating every three hours—and nuclein from the first—8 to 10 drops three times daily.

Surround the bed with a tent made of sheets, and with a croup-kettle or old tin pan half filled with water kept boiling on a small stove fill the enclosed space with medicated steam. Kerosene and oil of turpentine, of each a teaspoonful, work beautifully, but sanitas oil has served me well for many years (20 drops repeated every two hours). Cresoline vapor is not as desirable here as steam but may serve at a pinch.

As soon as the bowels have moved thoroughly, begin the exhibition of the sulphocarbolates (in solution); give as much as is needful (10 to 30 grs. daily) in any way you can get it taken. Sometimes a few

mouthfuls before a drink; sometimes a single good dose. Some children will take the tablet (gr. 1) of sodium or calcium sulphocarbolate best, followed by water, of course. The zinc salt is not desirable *alone* unless diarrhea sets in. Daily sponging with a carbolated solution of epsom salt proves helpful, especially when the temperature runs high. It consists of one ounce of magnesium sulphate to a quart of water, adding 15 to 20 drops of carbolic acid.

Enemata of decinormal salt solution are invariably beneficial, and I am quite sure that small doses of asclepidin (gr. 1-6) and ammonium benzoate (gr. 1-3 to gr. 1) are of service after the third or fourth day. As resolution sets in add sanguinarine, gr. 1-67.

Change the child's position from time to time, and be sure that it gets fresh air to breathe.

Treatment in the Convalescent Stage

If the case drags, alternate creosote (or creosote carbonate) and calx iodata. Give brucine, cactin and quinine arsenate three times daily as the convalescent stage is reached, with highly nourishing food in small quantities; and then to prevent after-claps, give arsenic iodide (gr. 1-67 after meals) for several days. Maintain elimination and an active skin for at least one month.

Here, as in lobar pneumonia, it is desirable to have a supply of oxygen available. We are not now compelled to trust to the "high-pressure" cylinders, portable and efficient generators being obtainable. That oxygen is of great use will not be questioned by those who have seen its effects, but it should be exhibited in small amounts for from fifteen to thirty minutes when cyanosis and dyspnea are present. To give oxygen—under high pressure—to a moribund patient is really ridiculous. Inhaled earlier, with each breath, it might have saved life.

Lobar Pneumonia (Croupous Pneumonia)

This is almost invariably an acute primary disease, coming on with startling suddenness after exposure. After the second year

this is the most common form and affects the robust and weakly impartially. In some parts of the country it is known as "lung fever," and sometimes is termed simply "inflammation of the lungs." One lobe or part of a lobe may be involved; in some cases both lungs are affected (double pneumonia); not uncommonly, just as resolution is beginning upon the side first affected the other lung congests. When the disease is bilateral, the prognosis must be guarded and great care taken to keep the patient from rising; sudden death has followed sitting up in the bed, even.

Fränkel's diplococcus is known to be the infecting organism. Four quite distinct stages are present in lobar pneumonia, the disease proceeding in the most orderly manner. First, *congestion* exists, then *red hepatization*, then *gray hepatization*, and finally *resolution*. In the red stage red and white blood-cells exude into the air-cells—the red preponderating; in the gray stage the white cells are in the majority; occasionally the lesser bronchi are choked also—very rarely the larger. The latter condition is termed "massive pneumonia." The disease ends by crisis or lysis. Crisis is usual. The physical signs which present in the various stages are perfectly described in all the larger works on practice.

The Symptoms of Lobar Pneumonia

A chill is suddenly experienced and this is followed by a severe headache and a fever which mounts rapidly to 103°–104°F. Delirium is sometimes a feature even at this stage (cerebral pneumonia). Respiration is irregular. The initial chill may be absent in young children, and vomiting, diarrhea or convulsions may be features in patients under ten. During the first few days it may be extremely difficult to differentiate lobar pneumonia from bronchopneumonia, meningitis or a beginning exanthem, for in a great many cases there is no "brick-dust sputum" (it is rare under eight) and the most careful auscultation may reveal no definite symptoms. All this time however the fever is high and

cerebral and gastrointestinal symptoms may be marked.

Cough even may be absent, though this is not common. In these cases, if we examine very closely, we shall find diminished vesicular breathing and some crepitation upon deep inspiration; moreover, I have noted that the respiration is peculiarly rapid and short. In these days, where we have an effective early treatment, it is quite often impossible to say that a child had a croupous pneumonia, as crisis is never reached. In the typical cases crisis may make its appearance on the ninth day—between the sixth and eighth and rarely on the fifth—or even the third. There may be no crisis at all, even in untreated cases, the disease subsiding slowly. The temperature drops several degrees as resolution begins—from 104°F. to 98°F., or below normal.

As we are aware, "abortive" cases are now frequent; a typical pneumonia setting in and being cut short within three days. Fulminant cases are also met with; here every symptom is accentuated and, unless the patient receive the most careful attention, death ensues in the first week.

A "central pneumonia" may puzzle the attendant: every symptom of pneumonia exists but physical signs are lacking and not till the process extends to the surface of the lung can we detect the conditions. The "creeping" form hitherto caused most trouble and the patient was not out of danger for three weeks, one part after another of the lung suffering. Today we cut the process short and render germ propagation or localized congestion almost impossible. Pleurisy often coexists, indeed the pleura is more or less affected in every case (dry form). Peritonitis or pericarditis may also appear.

The Treatment of Lobar Pneumonia

See "Bronchopneumonia." Treat the condition present. Secure defervescence early, and if the temperature is high, sponge freely with the carbolated epsom-salt solution. Aconitine, digitalin and veratrine in sthenic cases (always early), substituting strychnine

for veratrine in asthenic. Later, calcium sulphide to saturation, and nuclein—to increase resistance—are positively indicated. Invariably open the bowels, as the first step, with calomel, gr. 1-10 to 1-6, and podophyllotoxin (gr. 1-12) (or iridin gr. 1-6), repeating this dose half-hourly for two to three hours and follow with a saline laxative draught; repeat the latter daily. Creosote in small doses (one granule) or creosote carbonate, gr. 1-2, exerts an excellent influence during hepatization and resolution. It may be given every three hours in alternation with calx iodata. The addition of cactin to any medication will suggest itself after the congestive period, as the heart needs support (not the "whip"), and in cases seen late, with exhaustion evident, we shall be compelled to push atropine till slight redness of the skin and then maintain the effect with cactin, gr. 1-67, and strychnine, gr. 1-67, every four hours. If there is much rusty sputum (as in older children) and it is difficult to raise it, sanguinarine, gr. 1-67, or scillitin (or the two in alternation) are called for. However, where proper treatment has been instituted early, we do not get these troubles later.

The question as to whether we should apply heat or cold in lobar pneumonia remains unsettled—because in any one case either may be necessary—or both. Where we have a high fever and few physical signs of lung involvement, the epsom-salt sponge gives wonderfully rapid relief, moreover, it aids the defervescent. If, however, the fever is moderate but the evidences of most extensive congestion exist, heat, and *heat only*, proves comfortable and beneficial. Here the chest may be painted with guaiacol (not too much—20 drops is sufficient), and a good glycerinized paste applied as hot as is tolerable, a cotton-batten-lined undershirt being fitted snugly

over it. Repeat in six hours, if necessary. In these cases, cool, wet cloths may be applied to the head, if it aches, with good effect. Sleeplessness and an irritating cough will yield to codeine, gr. 1-24 to 1-12, repeated two or three times.

If you can see a case early enough and know that localized, deep congestion exists, promptly exhibit atropine, gr. 1-1000, half hourly for two hours and *then* begin the defervescent. The calomel or other cathartic will of course have been ordered. These measures often alone suffice to abort a case. Excitement or delirium, suffused face and red tongue with a quick, hard pulse will call for gelseminine, gr. 1-500, every half hour or hour "to effect." Here too the cool epsom-salt sponging and saline enema are often *essential*.

The Diet in Pneumonia

This is important and must be fluid and nutritious: milk and lime water (or vichy), barley water, thin, clear broths and bouillon are alone allowable at first. Fruit juices in water, toast water and oatmeal water may be used with safety instead of barley water, which, however, acts potently upon the kidneys, producing free diuresis. Give of this two pints daily—with milk or alone, slightly sweetened and flavored with lemon or with a pinch of salt. Weak cocoa in small quantities may be given after the crisis, with gruels, a soda cracker or two, or zwieback. Egg-nog is excellent and the prepared blood-foods often necessary: I give ten to twenty drops of sanguiferrin or bovine to all my patients four times daily after the third day. The less they get (beyond barley or plain water) the first twenty-four or thirty-six hours the better. The weakly child will be easily supported by these preparations and a little milk during the stage of high fever.



HOW I CROSSED THE RUBICON

Telling how I first treated a hospital case of typhoid fever solely with alkaloidal and synergistic remedies, and of the success that I had with them

By J. W. WHEELER, M. D., Cornwall, Ontario

I SEND you this short sketch, not as being of any importance, but simply and solely because I feel that it will awaken a sympathetic chord in the hearts of some few of the "brethren" and may possibly encourage others to venture who may be similarly situated.

Why Hospital Cases Have Not Received Alkaloidal Treatment

Prior to this case I had insisted on treating my pneumonia and typhoid-fever patients at their own homes. This was easy, as with the "arms of precision" I was invariably enabled to cut in two the usual duration of such cases. If cornered, and it became absolutely necessary to place them in a hospital, I generally adhered to the old orthodox treatment, hitherto in vogue, with a few modifications. I did this for several reasons:

1. I am the only alkaloidal physician here.
2. The alkaloids and other active principles cannot be obtained in this town.
3. There are none in stock at the hospitals. (I think there will soon be now.)
4. The alkaloidal therapy is totally unknown to the nurses.
5. Should an accident occur, or any unfavorable termination, it would be quite a blow to the alkaloidal method here, but a far more serious one to their advocate.

Those causes look trifling on paper, but when you face the reality after fifteen years' experience in the "old rut," they are quite formidable enough to require considerable moral courage to do so cheerfully.

Furthermore, I had to furnish all the medicines required, gratuitously of course, and of necessity must deliver to the nurse several lectures on the principles and practice of alkaloidal medication, more par-

ticularly, of course, in their relation to the treatment of typhoid fever.

A Case of Typhoid Fever

So much for an introduction. Now to the case:

Friday, August 16, I was called to see Fred C., age 13 years. Inquiry elicited the fact that he had been indisposed practically all week. The first day or two his bowels had moved freely, four or five times daily. During the past forty-eight hours, however, they had not moved at all. He had become progressively worse, and complained of severe abdominal pain.

On examination I found: temperature, 105°F.; pulse, 103; respiration, 22, and shallow on account of the severe pain caused by deep respiration. Palpation revealed an abdomen greatly distended by gas, the right rectus muscle very tense, and great tenderness over McBurney's point. I could also outline a portion of the intestines (the transverse colon) for a length of several inches, which felt exactly as though it had been replaced by a similar section of one and one-half inch rope.

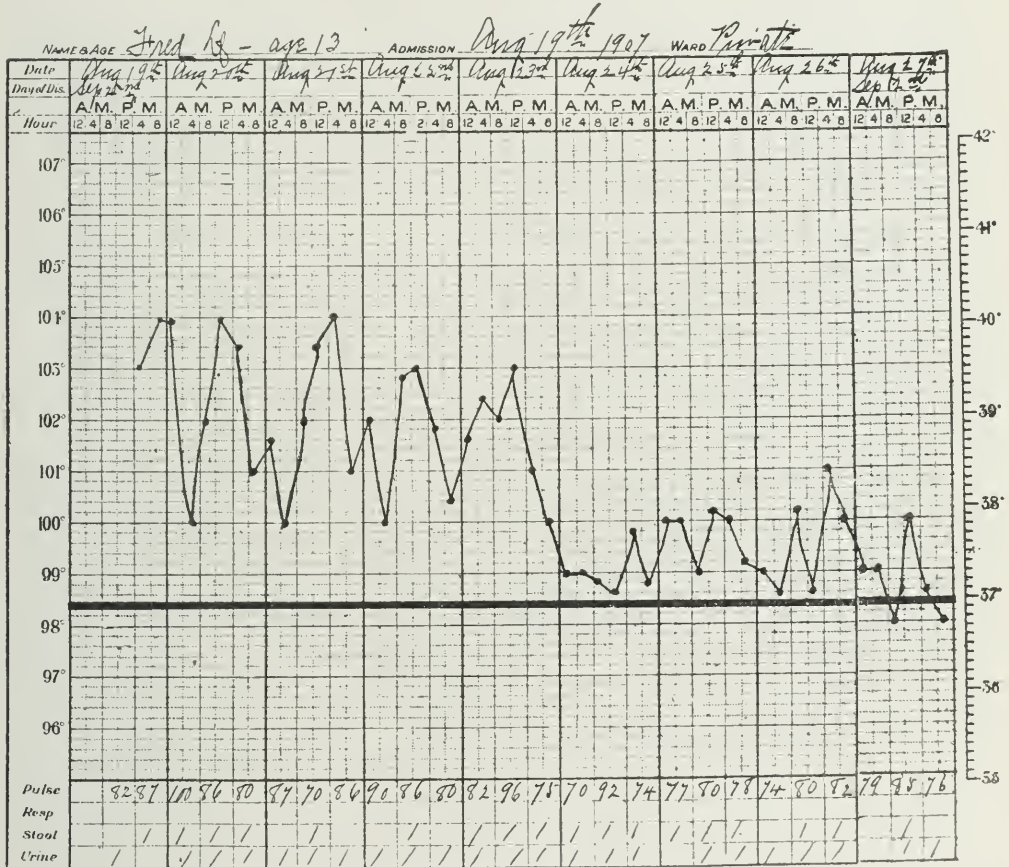
The patient was so saturated with the toxins of autoinfection that he was absolutely stupid, and I was obliged to repeat any question several times in a very loud tone in order to get any reply. Diagnosis: Typhoid fever—and a serious case at that.

How the Case was Treated

I at once prescribed and personally administered one ounce of castor oil. In similar cases I always use this for two reasons: (1) It lubricates and soothes the intestinal tract; (2) it softens the hardened feces, and mitigates the agony of their passage, an agony in my experience only second to childbirth, and most certainly without its recompense.

Half an hour after giving the castor oil I ordered calomel and podophyllin, 1-6 grain of each every half hour until effect. I then ordered the defervescent compound granule, one every hour for three consecutive hours; the fourth hour I ordered

At the hospital his treatment was: One defervescent compound, No. 1, every hour for three consecutive hours; every fourth hour he received two of the intestinal-antiseptics (compound-sulphocarbolate) tablets. Morning and evening he was given a dram



Temperature Chart of Dr. Wheeler's Case

two intestinal antiseptic tablets, this treatment to be continued until further directions.

Saturday and Sunday his condition was but little improved, although he became brighter after his bowels were emptied. I discovered, however, that he had not received his medicines regularly, and on Monday, the 19th, decided that as his case was serious he should be placed in a hospital. Accordingly he was removed to a private room in "L'Hôtel-Dieu."

of saline laxative in water, lemonade or similar liquid. After the third day I substituted the dosimetric trinity for the defervescent compound, as I preferred the strychnine to the veratrine at this stage, in order to strengthen the heart. About this time I also reduced the "intestinal antiseptic" to one tablet a dose, as the feces were odorless.

Only once after the fourth day did his temperature go over 100°F., and on the ninth day he was up and around. What

do you think of that? The nurse, who was very skeptical at the start, now vows that if she ever has typhoid she will have me treat her if I am on earth.

I only wish I had "crossed the Rubicon" years ago, as this case is the best advertisement any physician could have; I shall consider myself more than repaid, should I never receive one cent in cash. Of course I'll not tell the patient so.

As the nurse remarked, "No one would believe it possible who had not seen this case at the start and followed it closely." She was right.

A Case of Croup in the Same Family

In connection with this case, another incident occurred worth relating. On Thursday, August 22, at 4 a. m. I received an urgent call by 'phone to go to this boy's home. While en route I naturally concluded that this meant "more typhoid." I was wrong. When I arrived I found my patient's little sister, aged 5 years, in the throes of croup. The parents had lost a little boy of the same age by a similar attack a couple of years previously and were greatly alarmed. I was not a particle worried, as I had my iodized calcium with me. As she had already been thoroughly purged I dispensed some 2-grain powders, one to be taken every two hours in warm water. I also left her some tonsillitis tablets, one to be taken each waking hour, alternating with the calcidin, and went home to my virtuous couch. I called that evening, and found all traces of croup almost completely vanished. The next morning she went to school.

I might remark that I find the "tonsillitis" tablets a good adjunct to iodized calcium (calcidin). In these cases both parents and doctor owe much to calcidin. The former are saved hours of worry, while the doctor is enabled to enjoy many

hours of needed rest, that with the old treatment were spent at the patient's bedside.

[This is a beautiful case. In first looking over the article, however, it seemed to us that the presentation would have been stronger if a Widal test had been made. to verify the diagnosis. We so wrote the doctor, whose reply is given below:

"I find that both on August 21 and August 23 I made a 'Widal,' in both cases with beautifully positive results. The reasons for my not mentioning them were:

"1. They were made for corroborative and not diagnostic purposes.

"2. The diagnosis was already clear.

"3. He had been in the hospital three to five days when tests were made.

"You know, far better than I, that this test is frequently negative in the earlier stages. I only rely on it later. In fact I only made them to convince the 'doubting Thomas.' While I am at it I might say that, for a couple of days, I was obliged to use lanolin on the lips and also a 25-percent glycothymoline solution in the mouth for the relief of fissured lips and tongue. I omitted those few trifling details as of no interest, particularly as I was reporting an 'alkaloidal treatment' and for the perusal of 'alkaloidists.'

"In reading this report, please remember that I have been in active practice for almost sixteen years. Were I a recent graduate I would not be required to give so many reasons for my 'new allegiance.' During this period I have filled various responsible positions, from medical health officer up to dominion quarantine officer, so you see I must be very 'circumspect.' Moreover, the inhabitants have to be 'shown' when any new ideas are introduced. I am doing the showing O. K. though."

This seems to settle things.—ED.]



SUCCESS IN THE TREATMENT OF TYPHOID

This paper, which was read before the Monroe County Medical Society, describes the author's method of treatment, by following which he has secured remarkable results

J. L. SWEENEY, Monroe City, Missouri

THERE has been so much written about this disease, its etiology, general characteristics and treatment, by men distinguished as investigators in medicine, that it seems almost presumptuous to make an effort even to write an article about it, much less to attempt to add anything new, instructive or practical on the treatment of a disease that has baffled the skill of the profession so long.

It is therefore with some hesitancy that I approach this well-worn subject; but if I am able to make or emphasize one new point, or present one new idea worthy of your serious consideration in regard to the treatment of this disease, I shall be highly satisfied.

Should it be "Typhoid" or "Enteric?"

That this much-dreaded disease is primarily one of the intestinal tract is, I believe, conceded by all, and therefore the term "typhoid" would seem to be a misnomer and the disease should be called "enteric" fever instead; but as this term does not distinguish it from other forms of intestinal fever, I suppose the old name will stick to it.

Typhoid fever is caused by infection of certain intestinal glands; these glands are infected by the bacillus of Eberth—who has the credit of discovering and isolating the germ in the year 1880. The germs are said to enter the system through the medium of food and drink, or any other such method as will introduce them into the intestinal tract. Now, why do the glands of Peyer and the solitary glands of the intestines become infected, and who do not the tonsils or the pancreas, or any of the other glands of the body, become the seat of this disease? Why do the germs of certain diseases select certain organs and no others? Why should

mumps affect the parotid glands and malaria the spleen?

Were these organs of excretion, the problem would not be difficult to solve, by assuming that it was nature's effort to get rid of these germs by this particular route. But do the germs select the organs or do not the organs rather select the germs? Nature has provided the different secreting organs of the body with cells which have the power to take from the material coming into contact with them such portions or elements of said material as have a chemical arrangement such as to make them useful in elaborating the secreta of that organ. In fact, all nature, it seems, is made up of but few chemical principles, differing in arrangement of atoms and molecules, requiring only a slight change in such arrangement to produce a great difference in product. The cells of the liver, for instance, have the power to select from the blood chemical combinations which will make bile, and those of the stomach substances which will produce pepsin and hydrochloric acid; whenever any substance is propelled along the blood-stream containing these elements in definite proportions, these organs spring to their selective and special duties and appropriate that pabulum which is best suited to their use.

Now I am not aware that a chemical analysis of bacteria has ever been made, but I have no doubt that could such an analysis be made, it would be found that, like all other material products, they have a definite chemical organization, and that when the bacillus of Eberth (the typhoid bacillus) traverses the intestinal tract looking for a location, the glands of Peyer and the solitary glands just meet the indication, and being elected to remain in this locality for an indefinite time, the little intruders

develop poisonous products which produce the inflamed condition of these glands which is characteristic of the typhoid state.

Antiseptics Most Useful in Typhoid

The treatment of the present times seems to be fully in accord with the antiseptic era and there is no question that this disease is much more successfully treated under the new and antiseptic methods than by any other forms of treatment.

While a few years ago we were taught that this disease was self-limited and must run a definite course of from four to eight weeks, that it could not be jugulated, could not be cut short or even modified in its course, today we know better, and the average practitioner (unless he be one who still clings to the old method of locking up the secretions with opiates and following the expectant plan of waiting for the classical "turn of the tide") believes that he *can* jugulate his milder cases and shorten by half the course of the more malignant ones.

How does he do it? Does he do it by the old method or by the new, the antiseptic way? Do the antiseptics kill the germs?

Personally I do not think it possible to kill them or even to disinfect perfectly twenty-five feet of intestinal tract or to inhibit entirely the growth of the typhoid germ by any drug that would not at the same time do violence to the mucous lining of the intestines, I mean by reason of the germicidal properties of the medicament itself. But if we can not kill the germ we can at least restrain its activity.

If the drug does not destroy the germ, you may ask, what does it do, and what is the use of giving such medicines at all? Let us look over the antiseptic drugs, heading the list with the mild chloride of mercury.

The Antiseptic Action of Calomel

The antiseptic action of calomel is to increase the activity of the glandular system, especially of the liver, the salivary glands, pancreas and intestinal glands,

thus favorably affecting their secretions so as to increase their quantity all along the intestinal canal.

Bile is itself antiseptic, from twenty to twenty-five ounces being secreted in a day; any interference with its flow deprives the intestinal tract of one of its best antiseptics. Hence we should not interfere with but encourage the hepatic functions. We know that in typhoid fever this function is seriously interfered with, that the secretions of the liver, pancreas, spleen and intestines are more or less deficient, by reason of the loss of appetite and the consequent absence of their natural stimulant, food, and as a result of the congested and swollen condition of the mucosa due to the disease and the disturbed circulation. Right here such intestinal antiseptics as calomel manifest their virtue by overcoming this hyperemic condition to a great extent and by forcing the glands to act; thus a great amount of natural antiseptic, the healing constituents of the digestive secretions, is thrown out at the seat of disease, and this in conjunction with the sulphocarbolates and nuclein, given in full doses, increases the number of leucocytes and stimulates them to wage successfully a battle royal with the enemy and finally to free the blood from the aforesaid germs and their products.

This same condition exists when we have a hemorrhage from the bowels. How many times can we date the beginning of convalescence of a typhoid patient to a profuse hemorrhage. I have been led to think it a good thing to have this occur in nearly every really bad case, if we can manage to stop it when we want to. I firmly believe that the pure red blood, "the life of the body," nature's antiseptic, containing the natural healing properties of the body, when poured over the seat of the disease, there to remain several hours, has many times saved the life of the patient. I never have lost a case from hemorrhage.

The Characteristic Temperature Curve

Of the fever itself, Tyson tells us, "it is the most important and characteristic

symptom and that from it alone one may be able to diagnose a case of typhoid." He, here, refers to the tide-like wave of "evening rise and morning fall." Early in the disease the temperature each evening and morning will be from one-half to two degrees higher than on the previous evening and morning. He avers that this is not true of any other fever. This tide-like evening rise and morning fall occurs, of course, when the disease is permitted to progress without medication, properly administered and of the right kind. And here again is just where an intestinal antiseptic like the sulphocarbolates comes to the rescue, jugulating the fever and preventing further progress of the disease, so that the patient is up in from twelve to fourteen days. There are none of the distressing symptoms of the older days: no subsultus tendinum, no picking at the bed-clothes; meteorism, tympanites and delirium are conspicuous by their absence under the antiseptic treatment, and we do not have complications to consider under this method, if it is properly carried out; nor do we expect to meet them.

I shall not take up your time nor tax your patience with suggestions as to the various phases this fever might assume; for as I have already told you, with the treatment outlined you will hardly be called upon to treat other serious conditions or complications. I have no doubt that this may sound just a little "fishy" and possibly unreasonable to some who have never tried and proven the antiseptic method, as taught by Abbott and Waugh, of Chicago, but it will bear a fair trial and prove its efficacy. I have employed this method in my practice for eight years and my success with it has been all I could wish. I have cured ninety-nine percent of all the typhoid fever cases I have had in this time.

The Treatment of a Typical Case

First secure perfect and complete elimination. This I do with calomel, soda, and podophyllin, giving with them bismuth and capsicum. This I direct shall be given every night at 9 p. m. and followed the

succeeding morning by a saline laxative. Next comes the "intestinal antiseptic" (compound sulphocarbolates), given in 5-grain doses every two hours, day and night, while awake. This, together with sponging the hands, face and feet with cool water, usually controls the fever. If, however, it does not, I prescribe aconitine amorphous, gr. 1-134, digitalin, gr. 1-67, and veratrine, gr. 1-134. Should the pulse be rather weak I substitute strychnine arsenate for the veratrine and direct one granule of each of these remedies to be given every one-half to one hour, according to indications, until the temperature falls and the pulse softens; then I stop these and push the "intestinal antiseptic" until the stools are robbed of their bad odor, which is an indication that I have control of the condition. Then I give just enough of the sulphocarbolates to keep the bowel sweet and clean.

The most important feature in treatment is to "clean out, clean up and keep clean" the intestinal canal, all the way through, if possible; then your remedies can and will have the effects desired. Otherwise they are almost certain to prove a disappointment. If unusual restlessness prevails I give codeine sulphate and acetanilid to quiet the patient and induce rest. This may often be accomplished by the sponging of the hands, face, feet and legs.

Keep the Patient Clean and Feed Him Well

Next in importance comes hygiene and diet. Of course everything about the patient should be kept as clean as is possible under the circumstances. All drinking water should be boiled, then cooled with ice and given with ice. All excreta should be disinfected and buried under several inches of earth, away from the flies. After a few days and when you think you have the fever under control you may begin to feed the patient by giving him all the ice-cold buttermilk he may relish; let it be given in small quantity and at two- or three-hour intervals. The white of egg, cold and raw, right off the ice, may be given every two hours during the day—for an adult a

large tablespoonful just as it comes from the shell, with just a dash of salt sprinkled over it to disguise whatever of taste it may have.

A little later, when the tongue shows signs of clearing, I allow ice-cream made with rich milk (cream) and raw eggs. There is nothing more grateful to a fever patient and I have never noticed any bad effects from it; on the contrary, I think it quite helpful and nourishing. Next in order, as the symptoms grow better, I allow the semisolids, with beef or chicken broths, or the panado when the milk does not agree with the patient's stomach. Then, lastly, when the tongue has cleaned off and looks moist and natural, the patient is permitted to leave the bed and come to the table

and eat temperately of meats and almost any other food that seems to agree with him; but confining himself in the main to milk and egg products for a few days is always safest and best.

The treatment I have outlined has been so successful in my hands that, really, I never look for any untoward effects or bad complications. You are to understand, of course, that this is the rule, and that once in a great while I meet with exceptionally severe cases; but not often, when I can start my treatment *with* the fever, and get my work in in time. In such cases I can usually jugulate the disease and have the patient up in from twelve to fourteen days. I have done this so often that I know what I am talking about.

THE TREATMENT OF EAR AFFECTIONS

How the common ailments of the ear, such as every physician is called upon to treat, are successfully handled in a great public institution

By DANIEL S. HAGER, M. D., Chicago, Illinois

Acting Assistant Surgeon, Illinois Charitable Eye and Ear Infirmary, Ear, Nose and Throat Department

THE doctor who specializes learns to rely upon a few tried remedies and procedures. He very rapidly eliminates those which do not meet his expectations as regards results.

In the treatment of ear affections in a large dispensary, where I have been in attendance during the past two years, the following simple remedies and procedures are used in preference to others, although no set rule is followed by any of the surgeons or assistant surgeons.

First, the ear is carefully examined to find out where and what the trouble is, and the treatment necessarily is instituted which the surgeon thinks is indicated.

Eczema of External Auditory Canal

If there is a diffuse inflammation or an eczema in the external auditory canal, caused perhaps by the patient picking the wax out of the ear with a pin-head, hair-

pin or match and thereby injuring the epithelium, the patient is instructed to discontinue the practice and the epithelium of the canal is protected by the application of the following protective and antiseptic ointment:

Yellow oxide of mercury...grs. 5
Salicylic acid.....grs. 5
Vaseline oz. 1-2

The yellow oxide should be rubbed up in a little sweet-almond oil.

If there is eczema around the external border of the ear the patient is instructed not to use any irritating soap or water about the excoriation but to clean it with a soft cloth or absorbent cotton after applying a little olive oil over the irritated portion. Sometimes the irritated and excoriated surface in these chronic cases is touched up with a weak solution of silver nitrate, and is protected with Lassar's paste, or the latter with 5 percent of ichthyol

added to it. These simple procedures usually suffice to cure these conditions.

If the epithelium has been broken, however, and the pus germ has gained entrance into the deeper structures of the canal, with consequent painful furunculous formation, then the boil or boils are opened freely with a bistoury to give good drainage, after which the canal is packed with a pledget of cotton soaked in the following stock solution:

Carbolic acid	min. 20
Alcohol	dr. 1
Glycerin	oz. 1

The patient is also given a prescription for this solution and instructed to keep a pledget of cotton saturated with this solution in his ear until resolution has taken place.

The Treatment of Earache

Where the patient complains of earache, and if upon inspection there is redness of the drum membrane or also redness of the membrane of the canal, and the surgeon has reason to believe that there is no secretion of gas or serum in the middle ear, then the patient is directed to irrigate the canal at home with water as warm as can be borne and to apply hot applications to the external ear, or to blow hot smoke into the canal from a reversed pipe stem.

In these simple cases some surgeons prefer that the patient drop medicine into the canal at home. Atropine has been used by many physicians and the claim is made that it has a peculiarly soothing effect upon the congested membrane of a child's ear. Theobald has recommended its use in a one-percent solution in equal parts of glycerin and water. Some surgeons use a one-percent solution of atropine in a 10-percent solution of cocaine, a few drops in the ear at intervals of a few hours. Others again use cocaine in aniline oil.

Care should be taken in using these remedies where there is a perforation of the drum membrane, on account of the danger of absorption. At the dispensary to which I refer the glycerin-carbolic solution

is the one most frequently employed. The use of oils and fats in the ear is forbidden.

If, however, upon examination the drum-head is seen to be bulging or if there is a line across it, indicating the presence of a serous fluid in the middle-ear, then the membrane is at once punctured to allow the gas or serum to escape and thereby relieve the pressure upon the sensitive nerve-filaments, as also to avoid the danger of forcing any infective material into the antrum.

Opening the Drumhead

The drumhead is anesthetized with a pledget of cotton which has been dipped in the so-called triple anesthetic (equal parts of cocaine, menthol and carbolic acid). The anesthetic is allowed to remain against the drum membrane for five to ten minutes, after which the membrane is usually insensible to pain. Sometimes, if the patient is very nervous and restless, the surgeon prefers to put the patient under a general anesthetic, or, what is more rapid and also believed to be much less dangerous, under the influence of slight narcosis with ethyl chloride. A few whiffs of the latter are frequently enough to quiet the patient, and the puncture into the membrane is so quickly done that the patient hardly feels it. The Pierce lance is the one used by most surgeons, as it is protected from entering too far by a shank, which gauges the depth of the incision.

After the incision some surgeons prefer to pack the ear daily with absorbent gauze, to act as a capillary drain. Here a special pointed probe is absolutely essential, but as it costs but a trifle it can readily be added to the list of instruments required.

Some surgeons prefer to irrigate the canal of discharging ears, and for this purpose I prefer potassium permanganate or zinc sulphocarbolate. The permanganate is usually prescribed, one dram to four ounces of water, and the patient is directed to use one teaspoonful of this solution to a pint or two of warm water. In the seromucous discharge of children some prefer a weak solution of zinc sulpho-

carbolate. I think the latter good treatment on account of the slight astringent quality.

Some surgeons prefer to leave the natural canal intact and keep it clean, and for this instruct the patient to use a small applicator of cotton on a toothpick and cleanse the ear of secretions, after which an applicator dipped in peroxide may be turned around in the ear and then again cleansed. The latter procedure is perhaps of greatest benefit in chronically suppurating ears.

Cerumen is irrigated out of the canal with a warm solution of soapsuds or a

warm solution of baking soda. Some surgeons prefer to remove the cerumen with a curet, as in some cases where there is an old perforation back of the wax there is danger when using an irrigating fluid of forcing it into the middle ear, or even into the antrum, and thereby setting up a mastoiditis.

For the removal of wax and other debris from the ear canal I have found only one curet that is of any use. This is a small wire curet, but I do not know who designed it. At any rate, it does the work.

STAPHISAGRIA AND MISTLETOE

Two little-used remedies, which should be more carefully studied and their therapeutic possibilities more definitely outlined. Some practical suggestions concerning their field of usefulness

By FINLEY ELLINGWOOD, M. D., Chicago, Illinois

Editor of "Ellingwood's Therapeutist."

SPECIFIC staphisagria is prepared from the seeds of delphinium staphisagria, commonly known as stavesacre. The medicinal action, if the agent be carefully administered, is as reliable as any of the specific preparations.

In a general sense, staphisagria acts upon the prostate gland. It is not curative in the entire range of the diseases of this organ, but for certain conditions it is very reliable.

In prostaticorrhea its influence is not so marked as in chronic cases of spermatorrhea. In chronic gleet I have been enabled to do more in the complete cure of the cases with this remedy than with any other single remedy, having succeeded nicely even in very protracted cases. It is not ordinarily advised in the acute stages of inflammation of the prostate, but in cases of subacute or chronic enlargement with chronic irritation it is useful, especially if combined with saw-palmetto. I have certainly found these two remedies to work very nicely together.

In urinary irritation, common to old men with prostatic enlargement, with frequent desire to urinate, it overcomes the desire and the subsequent tenesmus, producing a sensation of restored tone. This result will occur if there is any inflammation of the bladder, provided it is combined with thuja or with chimaphila.

There is a class of these stubborn conditions that will yield to a combination of these three remedies, with perhaps the addition of gelsemium or cimicifuga if the nerves are involved, and will induce results most highly satisfactory.

I should like to have reports of the use of this remedy in the treatment of irritability of the vesiculæ seminales and of the prostate ducts, not uncommon between the ages of forty-five and fifty with men who have been excessive and dissipated in their habits.

The remedy has been recommended in prolapsus of the bladder-walls where an operation was impossible and where there was a long train of distressing symptoms.

In the treatment of certain forms of impotency I give this remedy with saw-palmetto and avena. It increases sexual power when imperfect and arrests excessive prostatic discharges.

It is a remedy for nervous excitement and nervous irritability which depends upon sexual irritation or upon any disease of the genitourinary organs. It should be given for certain forms of mental depression which occur in conjunction with hysteria or hypochondriasis, especially if accompanied with violent outbursts of passion.

Mistletoe

I have been inclined to believe that this remedy has been disappointing with many users, because of the fact that the fluid preparations were not made from the green plant. Furthermore, it must be given in sufficient doses, and in many cases it is best to repeat these doses frequently until a mild physiological action of the remedy appears.

If we were to compare its influence with that of many other well-known remedies, we should find some point of resemblance quite marked between it and ergot. It produces contraction of the involuntary muscular fiber the same as ergot, but it does this without causing irritation, in medicinal doses.

It also acts upon the circulation of the brain, overcoming engorgement and excessive fulness of the circulation. It should be administered with positiveness when there is an undue flow of blood to the brain, with intermittent headaches and a tendency to a flushed condition of the face which appears and disappears frequently. If this condition be present with hysteria, or where there is a tendency to epilepsy, with other nervous manifestations, it will be found especially efficacious.

I am inclined to think that a very happy combination in these cases can be made between this remedy and gelsemium. Not only in these cases but in painful conditions, such as those conditions which produce a sensation of tearing or rending pain,

or where there are rheumatic or neuralgic pains. Some writers have claimed that in these cases it is an ideal pain subduer, especially where the pain is not extreme.

There are conditions accompanied with the above symptoms when amenorrhea or dysmenorrhea are present, in which from its influence upon the uterine muscular fiber, conjoined with its influence upon the central nervous system, and especially upon the capillary circulation of the central nervous system, it should be selected as an ideal remedy.

Doctor Brodnax, in his time widely known as a medical writer, told me that he had given this remedy in the form of an infusion for a number of years, as an oxytocic. He began when the pains were feeble and administered it in frequent doses, expecting that it would increase the pain, promote dilation and normal expulsive effort. His opinion confirms that of others, that the remedy produces a normal, intermittent, uterine action, while ergot produces spasmodic contractions, which have but little resemblance to the regular, normal pains. It seems to exercise its full force upon the larger muscles of the uterus, causing the fundus to contract while the cervix remains soft and dilated.

No observations of any untoward results have been made. It does not seem to produce those painful contractions which bring on disaster, as ergot may do.

Quite a number of other valuable observations have been made concerning the action of this remedy. One writer has recently used it in the treatment of chorea, especially those cases which were of long standing and very persistent—not amendable to usual treatment. He gave five drops of the fluid extract of mistletoe every two hours, with satisfactory results. Other physicians have used the remedy as an antispasmodic in the convulsions of childhood, with good results.

Doctor Tascher, at one time Dean of Bennett Medical College, was convinced that this agent had considerable merit in the treatment of diseases of the heart. He gave twenty drops four or five times a day

where there was hypertrophy with valvular insufficiency, accompanied with dropsy of the extremities, slow, weak pulse, difficulty in breathing and an inability to rest in a reclining position. In one or two cases he was astonished at the result. The pulse became full, strong and regular, there was relief from the difficult breathing, the patient was enabled to lie down and there was a greatly increased flow of urine and serous discharges from the bowels with increased action of the skin, which resulted in very decided relief of the dropsical symptoms.

I have not observed any claim of this kind made by any other writer, but Doctor Taschar was a very close observer and a successful physician. I have confidence in his statements and believe that the remedy should be tried so that we may determine whether it is of benefit in this class of cases or not.

This remedy may be given with excellent advantage combined, with strychnine, during the latter stages of typhoid or other asthenic fevers where the heart's action is weak, rapid and irregular, and where there is a tendency to collapse.

C A N N A B I S I N D I C A

A description of this powerful
remedy, giving its physiologic action
and outlining its therapeutic uses

By J. M. FRENCH, M. D., Milford, Massachusetts

CANNABIS indica, or Indian hemp, as used in medicine is the flowering tops of the female plant of Cannabis sativa, grown in the East Indies. This is an annual herb, coarse, pubescent, and somewhat viscid, belonging to the natural order Urticaceæ, growing to the height of eight or ten feet, and having a peculiar odor and a slightly acrid taste. As found in the markets, it consists of the dried tops, cut off after flowering. Cannabis americana is the same plant grown in the Southern States of America. Cannabis sativa is indigenous to Persia and northern India, but is cultivated in many other countries. It has been naturalized in Europe, America, and Brazil. The plant grown in India seems to have the same general properties as has its American cousin, but the latter is not used on account of his deficiency in active principles.

Chemical Constituents of Cannabis Indica

Cannabis indica contains one or more resinoids [resins?—ED.], a volatile oil, gum, sugar, and potassium nitrate. The principal resinoid is known as cannabin,

From the volatile oil are obtained cannabene, a light hydrocarbon, and cannabene hydrate, a crystalline body. The active principle has proved hard to find, though many have sought to isolate it, and some have believed that they had succeeded. The virtues of the plant have been in turn attributed to a resin, a glucoside, and one or more alkaloids; but the results obtained by each of these observers have failed to be confirmed by his successors, and the problem is still unsolved. Cannabin, cannabene, and cannabindine, have each been put forward as the active principle. Wood, Spinnery, and Easterfield, in their recent investigations, discovered a number of terpenes, and a red oil or resin boiling at a high temperature, which they term cannabinol, and this has been found by Marshall to produce the typical effects of the drug both in men and animals. These results are as yet unconfirmed, however, and only further study can decide the truth of the claim. It is probable that no one single principle represents the entire activity of the plant, but that the resinoid cannabin comes nearer to this than any other.

Cannabis indica acts upon the nerve-centers in a manner somewhat similar to opium, producing a curious mixture of stimulation and sedation, or first stimulating the nervous system, and afterward depressing the vital forces. The secondary depression is much less than that produced by opium. Its action on the pulse is variable and irregular, causing it to beat sometimes faster and sometimes slower, or at first faster and then slower. In a similar manner the respirations may be either accelerated or retarded. Upon the kidneys it acts as a stimulant, producing a marked increase in the secretion of the urine. It is commonly reckoned, and by some most emphatically so, as an aphrodisiac, though other authorities deny this action. Brunton gives what is probably the correct explanation, namely, that aphrodisia is more often induced in Asiatics than in Europeans, owing to their peculiar physical and mental characteristics; or perhaps the broader statement would be, that its effects in this direction depend chiefly upon the disposition and personal characteristics of the individual. Upon the temperature *cannabis indica* acts in a similar contradictory manner, elevating it when the subject is in motion but not when he is at rest. As sleep comes on the temperature is slightly lowered.

Potter states that *cannabis indica* increases motor activity, stimulates the vaso-motor nerves, and strengthens the energy of the uterine muscular fiber, but has no power to initiate uterine contractions.

The special senses are all exalted by a full dose of *cannabis indica*.

But the most marked and peculiar of all the actions of *cannabis indica* is upon the mental faculties. H. C. Wood states that when given in full doses, it produces a feeling of exhilaration, with a condition of reverie, and a train of nervous and mental phenomena which varies much according to the temperament and idiosyncrasies of the subject, and very probably also to some extent according to the nature of his surroundings. These sensations are generally spoken of as very pleasurable; often beautiful visions float before the eyes, and a sense

of ecstasy fills the whole being; sometimes the venereal appetites are greatly excited; and sometimes loud laughter, giggling, and other indications of mirth are present.

Another effect of *cannabis indica* upon the mentality of the subject is seen in the rapid flow of ideas, which follow each other in such rapid succession as to produce a sense of great prolongation of time, minutes seeming as hours or even days. With these sensations often also occur increased sexual desire and uterine activity, also sensations of double consciousness and enormous dimensions. Sleep or coma, according to the size of the dose, follows in most cases, but death from acute poisoning has very rarely or never been known to take place.

The secondary or after-effects of *cannabis indica* are dulness, heaviness and confusion of mind, cutaneous anesthesia, and diuresis; but without the nausea, vital depression, and constipation, all of which are common from the use of opium. The continued use of the drug produces mental weakness and sexual impotence, as results of overstimulation. One of its early effects is a ravenous appetite. In some cases it has also been thought to be the cause of insanity.

In the Eastern countries *cannabis indica* has been used for an intoxicant from unknown time, and under various names, as hashish, bhang, ganja, charas or churrus, it is said to be habitually indulged in by from one to two millions of people. In some of these preparations the essential ingredients are smoked, either alone or mixed with tobacco; in others it is taken in the form of an intoxicating drink, while in still others it is mixed with sugar or honey and taken as a confection. Dr. Lees has called attention to the fact that the aqueous preparations of the drug, which contain but little of the resin, are much used by the natives of India for stimulating and intoxicating purposes, and he argues from this that the volatile oil and not the resin is the true active principle.

Cannabis indica belongs to the class of symptom-remedies rather than that of disease-remedies. That is, its chief use is to alleviate symptoms rather than to cure

disease. In its general actions and uses, as well as its limitations, it closely resembles opium. It is, however, productive of much less secondary depression than opium, and is a less dangerous drug. Its chief uses may all be included under one or the other of the two following heads, namely:

1. As an analgesic, to relieve pain and lessen spasm.

2. As a hypnotic, to quiet the nervous system and induce sleep.

As a palliative it may be employed in a wide range of affections, but its most marked and favorable effects are to be seen in painful and spasmodic affections. It is useful in neuralgic pains, and in some cases of headache, notably sick-headache, or migraine. To be of benefit in these cases it must be employed for a considerable length of time. It is sometimes used to promote euthanasia in advanced cases of phthisis. As a remedy in irritable and spasmodic coughs, it is fully as effective and much safer than opiates. It is useful in gastralgia and enteralgia, renal and hepatic calculi. In fact, Germain Sée pronounced it a specific for pain below the diaphragm. Taken internally it stops the itching of eczema and of senile and many other forms of pruritus. It is useful in

disordered mental states resulting from disturbance of the nervous functions, and in conditions of melancholia; in the wakefulness of old age and the restlessness of nervous exhaustion; also in disorders of motility, as involuntary muscular movements, especially those of a painful nature; to relieve the pains of locomotor ataxia, Pott's disease and other hip-joint disease, and rickets; in epilepsy and paralysis agitans; to allay abnormal sexual appetite; in neuralgic dysmenorrhea, and irritable coughs.

The extract is perhaps the most reliable official preparation, though, like all the preparations of this drug, it varies greatly as to medicinal activity in different specimens. The dose varies from 1-8 to one grain.

The fluid extract is also extremely variable. Potter says that if the precipitate formed, when the alcoholic extract is added to water, is of a dirty, yellowish brown color, the sample will prove to be almost inert, while if it be of a decided olive-green color, the preparation will be active.

Cannabin, and cannabin tannate, are given in doses of from five to ten grains as a hypnotic. The standard granules in use by the alkaloidists contain 1-67 grain, and these are administered in doses of three to six every two hours until effect.

CHEMICAL CORRELATIONS IN THE ORGANISM

The significance of some of the disturbances which take place within the body. A lecture delivered before the convention of Naturalists at Stuttgart

By PROFESSOR L. KREHL, Strasburg, Germany

III

THERE is a special interest attaching to the relations of the nervous system. We are to consider here the chemical rather than the nervous relations of the organs. But it may be said that nerve stimulation is only a special form of the chemical stimulation. At least this last thought presents itself very readily, and would imply that chemical operations of one organ are transferred to another

organ in a "special way" and by a special organ, namely, that of the nervous system, and not in the usual way with the aid of the blood- and lymph-currents. The fact is that the cells of the nervous system are extraordinarily sensitive to the least change in the composition of the blood; we know hardly any disease in which this composition is not involved, and as a rule this implication will involve some chemical effect. For instance, when the decomposition of

the protoplasm proceeds in a definite way there arise substances which influence the heat-regulating properties of the central nervous system—and this, for instance, is the genesis of non-septic fever.

Of the muscles we know that the carbonic acid generated in them acts upon the nervous system and the lungs. Hence here we have genuine chemical correlations of organs. There result here any number of disturbances, inasmuch as the incomplete removal of the gas leads to an accumulation of the same in the blood and hence an augmented action upon the organs. Thus, for instance, originate, in part, the dyspneic respiratory movements. Thus too there develops at times a dyspneic irritation of the vasomotor center.

A physiology and pathology of the future will very likely put in the forefront the chemical activity of the leucocytes. At present it is impossible to say anything positive about them. The leucocytes evidently contain ferments or activators of the highest general significance, for we see them occur everywhere in the organism wherever there is a development of lively chemical activity, as in the processes of albumin absorption, in inflammations, in autolysis, in the destruction, transformation and resorption of pathological products. We are acquainted with amylase, enterokinase, oxydase and tryptic ferments; we know of a kinase from the researches made on the coagulability of the blood, but surely all these thus far known represent only a small proportion of the chemically active substances. It is just the universal appearance of the leucocytes, their relation to all tissues, which point to the general significance of their constituents, and to their cooperation with many substances.

Very similar to the relations of the leucocytes are those of the bone-marrow. The formation in this of the antibodies indicates very lively chemical activity. Since disease-processes are analogous to normal ones, this fact points to an important and probably very extensive activity of the bone-marrow in the intermediate metabolism. We need but to be reminded of the fact that

the erythrocytes and leucocytes originate in the bone-marrow and from thence probably migrate through some chemical stimulus.

Here we might properly consider the spleen. Most certainly this organ actively exchanges its elaborates with other tissues. This, above all, is evident from observations in infectious diseases and in digestion. But, strange to say, we know nothing whatever about this organ. However, its insertion into the portal circulation and its tumefaction, during digestion, seems to indicate a near relation to the pancreas and liver. The frequent enlargement of the spleen in liver-affections suggests the same idea.

We now come to the central points of metabolism, namely, the pancreas and the liver. Here all that we know, especially of the liver, rests upon chemical correlation. For when, for instance, the liver produces urea out of ammonia salts and amino acids, it then elaborates the products of all the tissues, and when this production is limited because of an abundant formation of acids in the process of metabolism then it is just these acid-reacting substances from all possible organs which act upon the liver. Only we cannot speak of the chemical relations of specific organs.

Diabetes and Its Relation to the Pancreas

Something should be said, however, about the disturbances in sugar transformation. The discoveries of Von Mering and Minkowski teach us that here the pancreas becomes active. For an understanding of a series of slight attacks of diabetes the hypothesis suffices that the fixation of the glycogen in the liver is not sufficient, and thus one may surmise that it occurs through the influence of a disturbance in the pancreas. True, experimentally this idea is not positively supported, and prominent investigators reject it. Then there are those cases where the destruction of the sugar is deficient. In these cases the first thought would be that a certain substance originating in the pancreas is necessary for the splitting of the sugar in the tissues and that glycolysis therefore depends upon the cooperation of a number of substances.

Hirsch accepts this view as to the liver, while Cohnheim holds the same opinion for the muscles. In a private communication he says: "The glycolysis which is effected by expressed pancreas and muscle juice is bound to maintain very fixed quantitative relations and ceases very quickly, almost momentarily." Embden strongly combats these observations. Should they be confirmed, it would prove a great step in advance in the understanding of diabetes.

When the specific excretory products of the liver—and this means essentially cholic acid—enter into the circulation, many an organ is detrimentally affected in a chemical way. First of all to suffer are the heart muscle and heart nerves. With this come disturbances of the heart's action, which is slowed, weakened, irregular and uneven. These phenomena come from the heart muscle, partly reflectively from the sympathetic heart nerves, but also from the central termini of the pneumogastric. In favor of this view are the results of hypodermic injections of atropine in icteric patients.

But also the protoplasm of numerous other cells, as that of the erythrocytes, the renal epithelium, and the nerve-cells, suffers alterations through the influence of the cholic acids, so that functional disturbances of the affected organs, at least, may make their appearance. Headaches, itching of the skin and apathy are connected with it. Of the severe nervous phenomena which at times develop in the course of liver diseases I shall speak later.

As to the pancreas, reference must be made to the observations concerning auto-digestion and fat-necrosis. These properly are treated here, because in the pancreas itself there are present for the most part only inactive proferments. If these are to have a decomposing action in the gland itself, then naturally an outside activator becomes necessary. However, there have been observed, with more or less severe symptoms, necroses of the fatty tissues in the vicinity of the pancreas. Almost always, or always, this is connected with pathologic processes in this gland itself. In these cases necroses of the living substance

are frequently present—death certainly is to be traced to this—that is, steapsin as well as trypsin become active in the gland and its vicinity. This I construe to mean that a morbid process in the pancreas leads to the production of kinase, either from a lesion of gland-cells themselves or, for instance, by the leucocytes. At all events there occurs an activation of the proferments in the gland, and as a result of the absorption of these substances into near-by lymphatic vessels we have necroses.

In the cases treated of up to this point the endeavor has been to connect the pathology of the chemical relations with an alteration of normally subsisting relations. Only the consequences of bile absorption did not belong here, for even when the constituents of the bile, especially the cholates, do pass over continuously in slight quantities into the circulation, that certainly has no influence upon the function of the organ.

Now, however, there occur in a series of cases disturbances of chemical correlations without any relation whatever to normal conditions. Especially is this so in case of the kidneys, but for the liver as well. Of the chemical processes in the kidney we know nothing except that of the synthesis of hippuric acid. Essentially, in our present state of knowledge, the kidney is an excretory organ. And yet we observe exactly in diseases of the kidneys distant effects upon other organs, which are, in the greatest probability, effected by chemical processes. Above all, do we see this in uremic states.

Under the conception of uremia we may comprise all those states in which disturbances of the functions of organs can in the end be traced back to chemical influences proceeding from the kidneys. The disease-picture, is extremely varying—the nervous system and psyche, circulation and respiration, stomach and bowels, become affected in succession, not one case resembling another.

Pathologically we certainly have here to deal with no uniform processes. The hypotheses advanced in the past all assumed an intoxication produced by a deficient elimination of substances arising through

the activities of the organism and which not really leave it through the kidneys, or it was believed that special poisons originated in the intermediate economy of the diseased kidneys, or maybe that a chemical function failed from the diseased condition.

Ascoli has made the attempt to distinguish two forms of uremia. In the first class he places those which are conditioned upon a deficient elimination of substances adapted for excretion in the urine. Among these he puts the "quiet" forms, in which the patients gradually go to sleep without any previous symptoms of excitements. In the main therefore we here have to do with a depressive action upon the psyche, nervous system and circulation. In any case we affirm our perfect ignorance about the toxic substances here concerned. At any rate, they do not belong to the known bodies excreted with the urine. This we can say on the ground of many examinations made. Neither have we any good reason to think that some unknown preliminary stages of nitrogenous end-products are here to be considered, because, as a rule, there exists no exclusive relation between an increase of residual nitrogen and uremia. Still, for special symptoms these observations probably ought to be repeated. Indeed, it will be well to be generally extremely careful in judging of the consequences of anuria.

And just as little explanation is there for the disturbances of the intermediate metabolism of the kidney, upon which theory lays the blame of the restless forms of uremia. Here also we know nothing. All we can do is to adduce analogies. Symptom-complexes of great similarity are met with in other severe changes of the large glands, above all, in the most varied forms of liver affections and in diabetes. But none of the symptoms observed is characteristic. The important thing seems similarity of the symptoms and the mobile transitions.

These we have also in the case of severe general states in infectious diseases and some acute psychoses. Psychiatrists ascribe these to infections or autointoxications, but these are only words which can have no other value than that of analogizing. In

experiments on animals some of the symptoms resulting were similar to those where the liver had been shut out in birds, or after giving more than usual large portions of meat to animals with an Eck's fistula. It is very interesting that in all of these cases the phenomena of the hemorrhagic diathesis may also make their appearance, which in its last analysis may be traced back to changes in the cells of the liver.

What then lies at the foundation? Certainly an intoxication; hence the type of the chemical action of diseased organs upon other organs, above all, nervous system.

For the real discovery of these conditions it is necessary, of course, to learn what these poisons are—a difficult undertaking in which chemistry will have to play the principal rôle. But clinical observation will have to level the road still more than ever in separating more sharply defined groups from out of the great and general symptom-complexes and showing under what particular circumstances they occur. But, all in all, the liver will have to be placed in the foreground, because in the present state of our knowledge this organ occupies the central position where the products of the changes of the intermediate products of the metabolism take place.

Finally mention must be made of a process which proceeds from the kidneys and which most likely is effected in a chemical way. This is the change in the circulation following an inflammation of the kidneys. The arterial pressure rises and exhibits great but as yet unexplained vacillations. If the hypertonus continues for some time, then primarily there results hypertrophy of the left ventricle, followed by that of the right ventricle and of both auricles. According to Pässler's investigations the hypertrophy of the right heart and the left auricle is to be traced back to the insufficiency of the left ventricle. This means that all discussions concerning the origin of nephritic cardiac hypertrophy have to explain why it is that the left heart ventricle is subjected to increased resistance. That we have to do merely with increased resistance is evident from the absence of heart dilation, so long as there is no heart insufficiency.

¶ The beautiful animal experiments made by Pässler and Heineke show that blood-pressure and hypertrophy are merely the results of a lack of a sufficient area of secreting renal parenchyma, and neither the destruction of renal substances in the organism nor the presence of diseased renal tissue is necessary to bring about the phenomena.

The question in which forms of nephritis the above alteration in the circulation takes place can hardly be answered, since the very term nephritis at present is essentially a collective term for the most varied kinds of renal disorders. Most rarely this change is met with in simple degeneration of the epithelium, especially when this degeneration shows itself principally in the straight and convolute tubules. On the other hand, it seems that hypertonus results mostly when the glomeruli become diseased. If we accept the usual division of the different nephritides, it must be said that in every nephritis increased arterial pressure may be present, and so in every one it may be absent. How often it occurs in certain forms and how often it does not, we cannot correctly judge, because sufficiently accurate statistics are lacking, and general impressions at present govern instead the situation.

It is certain that the increased arterial pressure is of vasomotor origin. The entire manner of its appearance speaks for this; for it, too, above all, speak the decided enduring vascillations which the pressure exhibits in these patients as well as its great dependence upon external influences, such as the taking of food and bodily movements. It is therefore hardly to be assumed that the hypertonus is purely mechanical in its origin, due for instance to alterations in the firmness of the vascular wall. More probably it is an increase of the usual vascular tonus, and then one would be inclined to regard it rather as of a regulatory nature, that is, the function of the kidneys can in these cases be performed sufficiently only under increased arterial pressure.

The increase of the vasomotor tonus might be effected from the kidney by way of reflex or chemically. The last is the more probable to my thinking, ¶ and since the nature of the

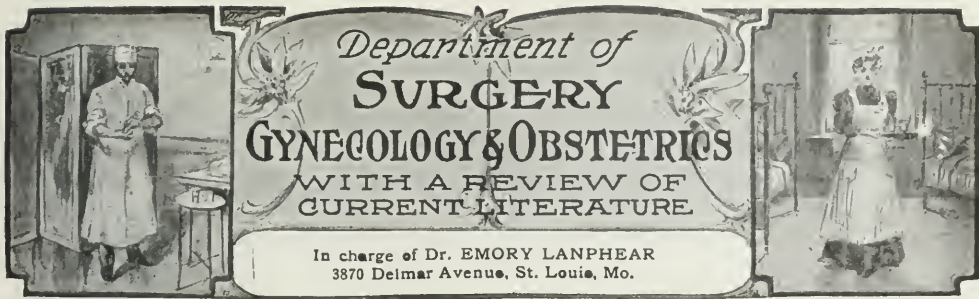
blood-current is of first importance to the function of the glomeruli, the most plausible assumption is that the morbid retention of substances that go to make up the urine, and which ordinarily leave the kidneys through the glomeruli, produce the hypertonus. And here is an end to knowledge and surmising.

Not only the blood-vessels but evidently numerous other organs and tissues are influenced in a chemical way by a diseased kidney, as for instance the membranes of the fundus of the eye and the endothelia of the capillaries. One might be inclined to regard at least the so-called Bright's retinitis as chemically induced, while various edemas of nephritic patients—and they certainly are not of one and the same origin—are also most likely traceable to the fact that some chemical substances increase the permeability of the blood-vessel walls.

* * * * *

Hypothetical reflections on the chemical correlations of the organs, as studied in the foregoing, reveal to us hopeless complications which the physician of the present cannot utilize. But these complications show also how, with the accurate adaptation of the cell-processes to the disturbing moments which produce the causes of disease in the cell, there is given the possibility of a spontaneous cure. However, every good physician, first of all, reckons with nature's power and seeks to promote and support it.

From the foregoing considerations it follows that every stimulation of cell-processes must presumably strengthen their capacity to overcome deleterious influences; and, furthermore, that the increase of functioning and perhaps also the power of changing the functions of other tissues, which apparently or so far as we know have nothing to do directly with the diseased organ, may after all act favorably on the elimination of the cause of the disease. The method of direct treatment is most assuredly that of the future. But internal medicine still needs also the indirect method with the aid of which the great physicians of the past and of the present have attained their successes.—[Translation by Dr. E. M. Epstein.]



CYSTIC-DUCT DISEASE WITH MOVABLE KIDNEY

The report of an interesting case in which operation to do kidney fixation revealed the presence of an enlarged gall-bladder containing an unsuspected gallstone

By GEORGE W. JONES, M. D., Keokuk, Iowa

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PATIENT, female, married, age 30. Examination showed a floating kidney, freely movable to as low as a position on a line with the umbilicus, on the right side. The kidney could be readily replaced in its normal position upon the right side. The patient complained of gastric symptoms and dragging pain but gave no history of gallstone colic; had suffered from the above symptoms for several years.

The Exploratory Operation

A lumbar incision was made to do a kidney fixation. Palpation with finger in lumbar incision and hand on abdomen showed a largely distended gall-bladder and a hard body supposed to be a gallstone. The peritoneum to the side of the ascending colon was incised through the lumbar incision and the fundus of a largely distended and infected gall-bladder readily drawn through the lumbar incision. Gall-bladder was aspirated and contents (consisting of cream-like matter not colored by bile) drawn off. Examination showed a large gallstone impacted in cystic duct, which could not be removed through the gall-bladder. The gall-bladder was split upon one side down to the cystic duct and

the stone removed with forceps, it first being crushed by the instrument. The gall-bladder was removed, not entirely, but leaving sufficient to be sewed around and to a drainage tube which was brought out through the lumbar wound. Gauze was packed around the tube down to the cystic duct.

In fixing the kidney, Senn's method of fixation was used: by slinging up the kidney with iodoform gauze—which was separated from the tube and gauze draining the gall-bladder by a rubber dam, the gauze and dam being brought through the lumbar incision. Lumbar incision was closed down to gauze and tube.

The gauze sling for kidney was removed in ten days, but gall-bladder drainage kept up for two weeks, pure bile draining. The sinus closed, with complete recovery of the patient and disappearance of the former symptoms.

Gallstones May Cause no Symptoms

Gallstones may be present without characteristic symptoms for years, and associated with a movable kidney their diagnosis before operation may be impossible. It is of value in all cases operated for movable kidneys to palpate the gall-bladder.

A case operated by the writer for supposed gallstones with movable kidney, the gall-bladder cut down upon through the right rectus muscle, an infected and distended gall-bladder was found containing pus, but no gallstones. The gall-bladder near the cystic duct, and the cystic ducts were bound down by adhesions. These adhesions were carefully separated and a spiral probe was successfully passed through the ducts. The gall-bladder was partly

removed and sutured around and to tube. Bile drained through the tube and the fistula closed.

The interesting feature of this case was that when the abdomen was opened the kidney was found to be in a position pressing upon the adhesions along the cystic duct. These adhesions may have been due to the pressure of the movable kidney or possibly to the former passage of a gallstone.

HYOSCINE-MORPHINE ANESTHESIA

The experience of a surgeon who has used this combination in a large number of cases and who, nevertheless, does not think himself either a "fool or a dare-devil."

By W. J. BRADLEY, M. D., Cedar Rapids, Iowa

MY excuse for presenting this paper to the members of this society is threefold. First, there has been so much written on this subject of late, both by enthusiastic admirers and pessimistic detractors, that I thought a report covering thirty cases in which general anesthesia was necessary and embracing a varied flora in the field of general surgery, from one of our own members, might be interesting. Secondly, I wished to vindicate myself against the charge that a man must either be a fool or a dare-devil to use this combination in general anesthesia. Thirdly, my experience with it has been so gratifying both to myself and patients that I wish to add my testimony as to its merits.

When there began to be published a year or two ago the gratifying results of the scopolamine-morphine combination for general anesthesia, the articles failed to find a proper culture-medium in my mental make-up, for I was not acquainted with the drug, by that name at least, and like the seed that was sown on stony ground, as related in Holy Writ, what little growth sprouted up soon sickened and died from not only a lack of root-environment but

also shafts of scorching rays from the red light of danger signals that soon appeared

Had Used Hyoscine and Morphine Before

However, in July of last year I read a report of a number of cases in which the hyoscine-morphine combination was used as the principal factor in general anesthesia. This struck a spot in which the soil had been prepared. I had been using this combination, at least a combination under this name, as an antidolor and antispasmodic for ten years or more. I had used it in gallstone colic, in renal colic, in appendicitis and salpingitis, in dysmenorrhea, in the cramps of tabes; besides as a cerebral sedative in the delirium of acute alcoholism and mania from whatever source. I had not, however, had the inventive genius to put two and two together and use it in general anesthesia. However, when a report of its use in this way came to my observation, I took to it as naturally as a duck takes to water. I had a confidence born of experience as to its value as a hypnotic, antispasmodic and analgesic.

In its administration hundreds of times as a therapeutic measure I had arrived at a pretty accurate dosage. Roughly esti-

mated, I might state that I had found that as an analgesic and antispasmodic I would obtain from gr. 1-8 morphine and gr. 1-100 hyoscine hypodermically, an effect equal to gr. 1-2 morphine alone, and the disagreeable effects of the large dose of morphine were practically obviated. In my cases of violent cramps the initial dose has usually been gr. 1-4 morphine and gr. 1-100 hyoscine. If necessary to repeat, it has been my rule to do so in one-half to one hour (usually the latter) with gr. 1-8 morphine and gr. 1-100 hyoscine. This I have found necessary to do a number of times until as high as gr. 3-4 of morphine and gr. 1-25 hyoscine have been administered. And I can frankly state without the least equivocation or mental reservation that I have never seen any effects that were at all alarming, and usually the results were most gratifying indeed.

More than an Adjuvant to Chloroform

In reporting my experience with the hyoscine-morphine combination in general anesthesia, I have found it difficult to express its position as a factor in the anesthesia. In only a very limited number of cases have I found the dosage I have used sufficient to control the patient without the aid of an occasional inhalation of chloroform. The term "adjuvant" to chloroform scarcely expresses its position, for it is the main factor in the anesthesia. But I have not been dare-devil enough, and indeed I think it inexpedient, if not dangerous, to push the dosage to an extent of profound anesthesia when the inhalation of 10 or 15 drops of chloroform in addition to the usual dosage of hyoscine-morphine will suffice for one-half to one hour's work in the abdomen, as has been my experience a great number of times. But then, again, it has been found necessary to administer a fairly generous quantity of chloroform. So, I repeat, I have not found a term that exactly expresses the position of this combination in general anesthesia. No doubt as the profession becomes better acquainted with its effects and limitations, a more exact position for it will be determined.

The mode of anesthesia employed in the subsequent reports would be best expressed by the hyphenated term of hyoscine-morphine-chloroform anesthesia. It makes one sleepy to say it. Indeed, in the administration of any anesthetic the psychological factor has much weight. This I understand is demonstrated most beautifully in the Mayo clinics at Rochester, Minnesota.

The Author's Technic

The technic I have adopted in the administration of this anesthetic is as follows:

Two hours before the time of operation gr. 1-4 of morphine and gr. 1-100 hyoscine are given hypodermically. One hour later a like dose is administered. These are both given in the patient's room, all preparations of patient for operation having been made before the first dose is given. The more nearly quiet the room may be kept the better. One-half hour before operation the patient is quietly moved to the anesthetic room where his eyes are covered over with a towel and he is told to go to sleep by the anesthetist, being assured all will be well. One-half hour later he is taken into the operating room, avoiding all noise, and carefully placed on the table, where final preparations for operation are gone through with. If the patient is sleeping, no chloroform is given. If not asleep in a few minutes after he is transferred to the operating table, he is given an effective "persuader" in the shape of inhalations of chloroform. This may require 10 or 15 drops or 2 or 3 drams. At any rate, by the time the patient is prepared it is unusual that he is not thoroughly relaxed. No chloroform is given after this unless there is muscular contractions.

I have worked in the abdomen and had the patient give intelligent answers to questions, and have had them ask if we were nearly through, for instance, yet not complain of pain or make any movements. Whenever movements occur a few whiffs of chloroform are administered until the patient is snoring, when it is discontinued until muscular contractions manifest them-

selves again. Strange to say, in abdominal work more evidences of pain are manifest in incising the skin or placing the skin sutures than in manipulation or dissection of the abdominal viscera.

Such then has been my technic in these thirty cases, with the exception that in the first ten or dozen patients, instead of giving the initial dose two hours before operation, it was given one and a half hours previous, the second dose following in one hour, or a half hour before operation. With this exception, the above technic has been scrupulously followed in all but one instance.

A Double Dose Given by Mistake

In case 18, through the unpardonable carelessness of the party to whom I had intrusted the giving of the hypodermics, a double dose was given at each time. The effect will be noted in its proper place.

Before giving the cases in detail I wish to make some general observations and state my conclusions as to the value and expediency of this method of anesthesia. These conclusions are drawn not only from the thirty cases I am submitting in brief detail from my own practice, but my personal observation includes ten or fifteen cases of general anesthesia, in the practice of Dr. Petrovitsky, and also four cases of obstetrics in which I have used this combination.

I wish first of all to state emphatically that in no single instance have I seen any really alarming symptoms intervene. On the contrary, there has been less evidence of shock or other "hair-raising" signs of operating-table collapse than any like series of cases heretofore in my experience.

The only cases that made me sit up and take notice were the three following:

Case 2. Mrs. B., age 35, curettage, amputation of cervix, anterior and posterior, colporrhaphy. Patient would not take any chloroform. Talked and answered questions intelligently through entire operation. Said she had no pain but complained of her cramped position. Toward end of operation, that lasted 1 hour and 5 minutes, she suddenly evinced evidences of faintness

which inhalations of ammonia as suddenly relieved.

Case 12. Miss S., age 26. Resection of 6 inches of colon for carcinoma and end-to-end anastomosis with suture. There had been complete obstruction for a number of days. Bowels above stricture enormously distended. Peritoneal fluid milky. Required very little chloroform. But bowels escaped from cavity and shock was pronounced on returning same. Time, 2 hours and 30 minutes. Patient left table in good condition.

Case 24. Miss V., age 16. Operation for suspected imperforate hymen. Discovered absolute absence of vagina and uterus. Dissected out pouch between urethra and rectum in hope of finding rudimentary uterus that might be brought down and stitched into artificial vagina. None found. Faulty respiration and cyanosis in middle of 45-minute operation demanded my attention, as chloroform was being administered by nurse, such extensive operation being unlooked for. Chloroform stopped, respiration slow but deep, cyanosis disappeared. Patient left table in good condition.

The symptoms in these three cases, though not really alarming, demonstrated the necessity of having an experienced anesthetist to look after the patients even if but little or no chloroform is found necessary. These three cases were the only ones that evinced any untoward symptoms.

No Effect in One Case

There was one, Case 29, Miss S., age 23, who seemed to have no effects of any consequence, from the hypodermics. She required the usual amount of chloroform, and was the only case in the series who interrupted our work by vomiting. It is but just to state that on this case we used hyoscine of another manufacture than was the custom.*

If the danger can be eliminated, the advantages of this method of anesthesia are obvious. First, the unpleasant and often

* The preparation I was in the habit of using was the Hyoscine-Morphine-Cactin Compound (Abbott).

terrible experience the patient undergoes in the first stages of ether or chloroform anesthesia are entirely done away with. For when chloroform is necessary the patient is so thoroughly insensible that she usually does not know she is taking it. Second, there is no vomiting during the operation, no filling up with mucus, no swallowing of the tongue, so-called. Third, usually no and never but little vomiting after the operation. This is indeed a god-send to suffering women, for these are the usual abdominal cases. It must be something awful to retch and vomit, and vomit and retch, when every contraction seems to be pulling one's intestines asunder. Instead of this usual six to twelve hours' experience under ether, the patient who has had this combination sleeps most of the time during the first six to twelve hours.

These are some of the advantages; time forbids me to enumerate any more.

† The following is a brief summary of the cases. Unfortunately the amount of chloroform used was not measured in each case. However, this is immaterial. What we wish in an anesthetic is, first, safety; second, satisfaction to patient and surgeon; third, convenience of administration. It is immaterial whether a single drug is used or several. Satisfactory results are what we are after, and my experience with this combination has been eminently satisfactory.

A Summary of Cases

Case 1. Mrs. Y., age 38. Operation July 31, 1906. Double salpingo-oophorectomy, appendectomy and ventral suspension. Time, 1 hour. Note: This patient had been operated on 6 months previously by me, when a curettage, trachelorrhaphy and perineorrhaphy had been done. I intended doing abdominal work at that time but had to stop on account of bronchial secretions, cyanosis, and so forth, under ether.

‡ The patient required nearly an ounce of chloroform, all told, but her condition was absolutely perfect during the entire operation. Postoperative nausea and vomiting were practically *nil*, while the previous

experience with ether had been violent.

Case 2. Mrs. B., age 35. Operation August 2, 1906. Amputation of cervix, curettage, anterior and posterior colporrhaphy. Time, 1 hour and 5 minutes. Note: Evidence of fainting already referred to above.

Case 3. Mrs. G. S., age 25. Operation August 4, 1906. Curettage, right salpingo-oophorectomy and intraabdominal Alexander operation. Time, 1 hour. Note: This patient had been operated on two years previously for appendicitis. She had refused operation again on account of the horror she had for ether. When I told her of this method she readily consented and expressed her satisfaction in glowing terms after the operation.

Case 4. Mr. P., age 24. Operation August 4, 1906. Circumcision. No chloroform. Time, 15 minutes.

Case 5. Mrs. O., age 26. Operation August 31, 1906. Double salpingo-oophorectomy and ventral suspension. Time, 1 hour and 15 minutes.

Case 6. Mr. C., age 35. Operation September 9, 1906. Removal of tubercular glands of neck. Time, 1 hour and 30 minutes. Note: This patient had been operated on for a like condition one year previously. Anesthetic badly borne. Secretions from mouth soiling field of operation as well. In present operation no untoward features.

Case 7. Mrs. G., age 32. Operation September 15, 1906. Left salpingo-oophorectomy. Time, 1 hour.

Case 8. Miss V., age 20. Operation September 24, 1906. Appendectomy with adhesions. Time, 1 hour and 50 minutes.

Case 9. Mrs. H., age 41. Operation September 26, 1906. Double salpingo-oophorectomy. Time, 1 hour and 45 minutes.

Case 10. Mrs. P., age 30. Operation September 28, 1906. Dilation and curettage for incomplete abortion. Time, 30 minutes.

Case 11. Mrs. R., age 27. Operation September 30, 1906. Perineorrhaphy and hemorrhoidectomy. Time, 45 minutes.

Case 12. Miss S., age 26. Operation November 4, 1906. Resection of 6 inches of colon for complete obstruction due to carcinoma. End-to-end anastomosis with suture. Time, 2 hours and 30 minutes.

Note: This case has already been commented on.

Case 13. Mr. N., age 40. Operation December 1, 1906. Incision of psoas abscess. Dissection made between left transverse process of 4th lumbar vertebra and crest of ilium. Time, 15 minutes. Note: This was the fifth time patient had been subjected to general anesthesia. It was the third time under my observation. Both previous anesthetics were extremely stormy. You may imagine his delight with this combination.

Case 14. Mr. W., age 20. Operation November 24, 1906. Left herniotomy. Time, 1 hour.

Case 15. Miss D., age 25. Operation December 15, 1906. Removal of multiple cyst of left ovary. (Cyst contained nearly two gallons of fluid.) Resection and anchoring of right ovary. Time, 2 hours. Note: Several times during operation patient answered questions addressed to her. She assisted herself from the operating table after section was finished. She required very little chloroform. She neither vomited during nor after operation, and never complained of pain during convalescence.

Case 16. Miss H., age 27. Operation December 18, 1906. Dilation and curettage. No chloroform. Time, 30 minutes.

Case 17. Mrs. S., age 44. Operation January 3, 1907. Posterior colporrhaphy, ventral suspension and appendectomy. Time, 1 hour and 30 minutes.

Two Double Doses—Yet no Ill Effects

Case 18. Mrs. B., age 25. Operation January 5, 1907. Hemorrhoidectomy. Time, 45 minutes. Note: In this case two double doses of hyoscine-morphine combination were given by mistake. That is, two hours before operation a hypodermic of gr. 1-2 morphine and gr. 1-50 hyoscine were administered, and a like dose 1 hour later.

Even then a few whiffs of chloroform were occasionally needed, demonstrating the profound anesthesia necessary for rectal work. No ill effects of these heroic doses were manifest although patient was of delicate physique, weighing 100 pounds. Respirations were slowed down to 12 per minute, but were deep and full and regular. Pulse and color remained normal. Patient could be aroused sufficiently to answer questions directly after operation, but slept almost continuously for 18 hours. I supposed the marked effect simply an idiosyncrasy of the individual, until a week later, when I discovered the error in dosage.

Case 19. Mrs. P., age 30. Operation January 13, 1907. Dilation of cervix to insert stem pessary to relieve dysmenorrhea in undeveloped uterus. Time, 20 minutes.

Case 20. Miss D., age 18. Operation January 14, 1907. Curettage, hemorrhoidectomy and herniotomy. Time, 1 hour and 15 minutes.

Case 21. Mrs. W., age 50. Operation January 16, 1907. Excision of lipoma size of grapefruit between shoulder-blades. Time, 45 minutes. Note: Ten drops of chloroform were given before initial incision was made, and although the growth was with difficulty dissected from integument, no more was necessary during entire operation.

Case 22. Mrs. C., age 28. Operation January 17, 1907. Curettage, amputation of cervix, anterior colporrhaphy, hemorrhoidectomy, right salpingo-oophorectomy, anchoring of left ovary and appendectomy. Time, 2 hours and 30 minutes.

Case 23. Mrs. R., age 49. Operation January 18, 1907. Panhysterectomy for multiple uterine fibroids. Time, 2 hours and 30 minutes. Note: This patient was sent to me with diagnosis of probable carcinoma, in which I concurred, not so much from the character of growth as the cachexia; this was marked. The growths were found to be innocent and cachexia, or rather cachexic anemia, was no doubt due to prolonged capillary hemorrhage from two fibroid polypi protruding into body of uterus. Despite this unfavorable subject the anesthetic was borne well in this tedious dissection. I

doubt very much whether the results would have been as happy under either chloroform or ether alone.

Case 24. Miss V., age 16. Operation January 21, 1907. Artificial vagina made in absence of this organ as well as uterus. Time, 45 minutes. Note: The cyanosis and faulty respiration have already been noted earlier in this paper. In this case also respiration was slowed to 12 per minute; pulse remained normal in quantity and quality. Patient could be easily aroused, and after chloroform was stopped, cyanosis entirely disappeared.

Case 25. Mr. N., age 49. Operation January 30, 1907. Reduction of Pott's fracture of left leg and application of plaster cast. Note: This patient was a large, sturdy blacksmith. I found him in his shop rather pale and faint with pain (mild shock). I administered a double dose hypodermically, that is, gr. 1-2 morphine and gr. 1-50 hyoscine. Ambulance was summoned and patient taken to hospital. An hour probably had elapsed before reduction was made. This was accomplished with the greatest ease. Muscles were thoroughly relaxed. No chloroform was given. After dressing, patient was put to bed to awaken from a dream an hour and a half later that he had broken his leg, which he verified by seeing it in a cast.

Case 26. Mr. K., age 36. Operation February 7, 1907. Incising knee to remove fragments and wire of fractured patella of two weeks' standing. Time, 30 minutes. Note: Here again one double-dose was administered, with the most gratifying results.

Case 27. Mrs. W., age 21. Operation February 7, 1907. Curettage, left salpingo-oophorectomy, suspension of right ovary and ventral suspension. Time 1 hour.

Case 28. Mrs. T., age 52. Operation February 10, 1907. Herniotomy for vicious strangulation. Time, 1 hour.

Case 29. Miss S., age 23. Operation February 26, 1907. Curettage, amputation of cervix, resection of both ovaries, anchorage of right ovary, ventral suspension and appendectomy. Time, 2 hours and 15 minutes. Note: This case has been com-

mented on earlier in this paper as one in which practically no effect was produced by the hypodermics.

Case 30. Miss S., age 17. Operation February 28, 1907. Appendectomy. Time, 1 hour and 10 minutes.

I thought it would be of interest to you to have these cases detailed, as it showed the various conditions, the various ages, and the various lengths of the operations, the latter in some cases speaking better for the anesthetic than for the operator, no doubt.

Suffice it to say that in this series of 30 cases there has been but one death from any cause. This could not be laid to the anesthetic. This was case 12—resection of bowel for carcinoma. It might be of interest to state that death ensued twelve hours after operation, and seemingly came from shock due to exaggerated peristalsis. The bowels began to move six hours after operation, large quantities of fecal matter and flatus passing away at frequent intervals, and with each evacuation evidence of shock became more pronounced until it was profound and death ensued from heart-failure.

I will simply mention that my experience with this anesthetic combination has been equally gratifying in the four obstetrics cases in which I have found it necessary to use partial anesthesia.

I would not have you believe that I think this combination applicable to all cases. I have not used it in all cases, by any means. You will observe the youngest case I have used it on was 16 years of age, and here we observed a marked slowing of respiration.

But there is such a wide field for its use within the bounds of reason and safety, and the effects are so happy and gratifying both to patient and surgeon, that I deemed a report from one of our own members might be of interest.

The preparation I was in the habit of using was the Hyoscine-Morphine-Cactin Compound (Abbott).

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PLACENTA PRAEVIA, AND HOW TO TREAT IT

A record of several experiences with this complication of pregnancy, with some observations concerning its cause, occurrence, and the most rational methods of treating it

By P. H. McMAHON, M. D., Burlington, Vermont

PLACENTA prævia is the most common and by far the most serious cause of antepartum hemorrhage. Normally the impregnated ovum, after passing down through the fallopian tube, lodges in a sulcus of the endometrium near the mouth of the tube. The portion of the decidua vera, lining the whole uterine cavity, against which the ovum lodges, is called the decidua serotina, and marks the site of the future placenta.

In all probability, placenta prævia is the result of an arrested abortion, the ovum having become dislodged from its original and normal resting place, but not having been expelled from the uterus. If such dislodgment occurs, or if for any reason the ovum on first entering the uterus does not fix itself at the fundal extremity, it drops down into the lower segment, and the placental site comes to be at or near the os internum.

The circumstances, other than arrested abortion, which favor this occurrence, are (1) an increase in the size of the uterine cavity, which may be produced by repeated and frequent pregnancies preventing complete involution of the womb, and (2) intrauterine inflammation or catarrh which has so smoothed off the mucous membrane that the folds, in some of which the ovum might have lodged have become too shallow to retain it. As we can expect, placenta prævia occurs chiefly in multiparæ, and often in those who have had leucorrheal discharge of uterine origin. Rapidly succeeding pregnancies also predispose to it.

Relative Frequency in Primiparæ and Multiparæ

In 136 cases collected by Lower, in Berlin, sixty percent of the women had been

delivered at least five times before, and a like porportion were upward of thirty years of age, while only eight percent of the whole number of women were primiparæ. The frequency of this complication in obstetrical practice is, unfortunately, quite considerable, Lower's cases showing for two of the Berlin hospitals alone 65 cases in one year, while the total births of the city numbered 46,000. This would give a minimum frequency of one case in 723 deliveries. Other statistics give a ratio as high as one in 500. In my own practice it has happened three times in 300 deliveries; twice it occurred in the same woman.

A distinction is usually made between placenta prævia centralis, in which the placenta is implanted entirely over the inner os, and placenta prævia lateralis, where the placenta is attached to the lower margin of the uterine wall. The placenta may be lateral, and yet in the early stages of dilation entirely conceal the fetus from the examining finger, so that the case appears to be one of central implantation; while as dilation progresses an edge of the placenta comes within reach, and the diagnosis is changed to that of lateral or marginal placenta. The more of the placenta that lies over the os, the greater the gravity of the situation; while if the margin only impinges on the edge of the dilating part of the cervix, the labor may go on as naturally as though the implantation were at the fundus.

When Hemorrhage is Most Frequent

In central or complete placental implantation hemorrhage is more liable to occur and recur during the course of pregnancy; while in lateral cases there is often no bleeding until uterine contraction and cervical dilation begin.

The most important symptom of placenta prævia is bleeding. In cases of central implantation the patient is liable to be seized suddenly and without apparent cause, perhaps during sleep, at any time in the last three months of pregnancy, with a severe hemorrhage. It may leave the woman blanched and pulseless, or it may cease spontaneously. Such a hemorrhage having once occurred there is no safety to the woman until the child is born. The bleeding may return at any moment with the most alarming and even fatal consequences. In a majority of these cases the pregnancy is terminated prematurely—a conservative measure of nature for the mother's life. In another class of cases, principally of lateral implantation, but rarely of central, no symptoms appear until labor sets in, when a sudden gush of blood frightens the patient and causes syncope, and is followed after each succeeding pain by further hemorrhage, until all of the placenta which is attached upon or near the cervix becomes separated, or the head pushed down through the dilating canal checks by compression any further bleeding. If the placenta is quite central in its attachment it may be born before the child. If the amount of blood lost has been large, the patient will suffer from syncope, giddiness, headache, restlessness, rapid, feeble, thready pulse, sighing respiration, and perhaps convulsions.

In placenta prævia an unusual proportion of abnormal presentations are found. Cross-births are especially frequent—amounting, in Charpentier's cases to twenty-four percent, and in Lower's cases to thirty-two percent.

Diagnosis and Prognosis of Placenta Prævia

A painless and apparently causeless hemorrhage during the later months of pregnancy or free bleeding during the first stage of labor is strong evidence of the abnormality. The diagnosis is completed by digital examination. If the cervix is closed, we can often detect a thickening of the walls of the lower part of the uterus, as felt through the vaginal fornices on one or more sides. As soon as the os will admit the finger-tip, the thick fleshy structure of the placenta is felt

instead of the smooth surface of the fetal membranes. The feeling of the surface is uneven, granular, spongy. The unusual vascular development often reveals itself in pulsating arteries about the os.

The prognosis of this condition is grave both for mother and child. The former is in danger from loss of blood. The bleeding is almost entirely from the maternal vessels. The child's peril is from asphyxia, his means for oxidation being cut off by the detachment of the placenta. To a certain extent there is a conflict of interest between mother and child. If a partial placental detachment is completed it sometimes checks the hemorrhage by allowing the sinuses to close together, while the child's source of oxygen is by that very condition destroyed, and a hasty delivery which is in the interest of the child is unfavorable for the mother, especially if it involves rapid dilation with danger of laceration of the very vascular cervix. Under any circumstances, the prognosis to the child is bad. Various authors give the infantile mortality as from fifty to seventy-five percent. And one-half of those who are born alive die in the first ten days. As to the mother, the prognosis depends largely upon the treatment. The older authors give the mortality as forty percent, but recent figures, with improved methods of treatment, has reduced it to ten percent. Of course with central implantation the danger is greater than with lateral. Incomplete uterine contraction following delivery adds elements of danger, even after the child is born. Postpartum hemorrhage may occur, and there is a special liability to infection in such cases.

How to Treat Placenta Prævia

The treatment is made principally in the interest of the mother, for two reasons: First, the maternal life, upon which so largely depends the welfare of the family, the care of the older children and the hope of future children, is considered of more value than that of the fetus, which is particularly liable, even if born alive, to quick dissolution, and in any event, exposed to the numerous diseases and accidents of infantile life; and second, because while improved knowledge

and therapeutic means have succeeded in greatly reducing the maternal mortality, no treatment has yet been discovered which, even directed primarily to the saving of the child, has achieved any degree of success. If the patient is at term when the hemorrhage first demands attention, uterine contractions have probably already begun, in fact it is to the contractions the hemorrhage is due—visible signs of labor may not be present at first, but they will soon appear. If the woman is not at term, but has reached the stage at which the child is viable, the safest procedure in the interest both of mother and child is the premature induction of labor, if nature does not set in and bring about this condition.

No precise rules can be followed in the treatment of every case. The elements necessary for success in this grave condition are a thorough knowledge of the abnormality: much will depend upon the judgment, skill and self-possession of the physician.

The Method of Procedure

If a woman in the latter part of pregnancy is taken with a sudden, painless and apparently causeless hemorrhage, the patient should be put to bed at once—in severe cases with a vaginal tampon properly applied—the head of the bed low, the foot of the bed raised. If this checks the hemorrhage, the pains come on fairly good, and the woman seems strong, we can watch closely and let nature complete the labor.

On the other hand, if the bleeding is quite free, the pains absent or lessening in force and frequency, the woman growing weaker, complaining of vertigo, blindness and all the other symptoms that are due to loss of blood, the only chance now for the woman's life is a rapid delivery. It is best to give ergot by the mouth, strychnine sulphate, gr. 1-40, and atropine sulphate, gr. 1-150, hypodermically, which can be repeated in a short time if necessary. Hypodermoclysis should also be resorted to in severe cases.

Next, one should administer an anesthetic, dilate the os with the fingers, first one, then two, three, etc. A better way, if the cervix can be reached, is to use the forefinger of each

hand hooked into the os and forced in opposite directions, for a few moments, then using the thumbs in the same manner, as they are much more powerful. The dilating force must be applied gently until the walls of the cervix yield from a physiological fatigue and not from a mechanical divulsion. By this method the os can be dilated very quickly, with much less danger of lacerating or bruising the cervix. The patient must be in the position for applying the forceps in order to make this method of dilation a success. When the cervix is sufficiently dilated, the accoucheur may apply the forceps and try to deliver. If for any reason the use of the forceps is not successful, or the head is not well down on the brim, one must not waste too much time, but introduce the whole hand into the uterus, push the head to one side out of the way, get hold of the feet and deliver by podalic version, bearing in mind the liability to uterine inertia in those cases. Of course if the child is alive it must be extracted at once, even at the risk of some injury to the mother. It is perhaps needless to say that every part of the procedure must be carried out with strict antiseptic precautions.

A Report of Cases

Case 1. Mrs. B., age 39. Twelfth pregnancy. She was a strong, healthy woman; all her labors were what she called "easy." I was called by messenger about one o'clock a. m., Oct. 3, 1897. On arriving at the house which was about one mile away, I found the patient lying on a couch, bleeding quite profusely. Said she was at about the eighth month of pregnancy. She had no pain, complained of feeling dizzy, of blindness by spells and thirst. She said the flow started while she was urinating in a chamber-vessel. Upon examination I found the os would just admit the tip of the finger. I could feel the rough, spongy, granular structure of the placenta. The walls of the cervix and lower uterine segment were about twice their normal thickness. My diagnosis was placenta prævia, with central implantation. I at once told the husband that the case was serious, and I wanted the assistance of an-

other physician; he accordingly dispatched a messenger for Dr. Joel Allen, and I proceeded to tampon the vagina with sterilized gauze which seemed to check the hemorrhage for a short time and was then of no apparent use.

It was quite a distance to Dr. Allen's home and it was over an hour before he arrived. We decided to remove the packing and re-tampon the vagina, using sterilized gauze and absorbent cotton, but this was no more effective than the first effort. The pains did not come on, the woman's skin was covered with a cold, clammy sweat; she complained of blindness and loss of strength. We gave her hypodermically morphine sulphate, gr. 1-4, with atropine sulphate, gr. 1-150. I administered chloroform, Dr. Allen dilated the cervix as rapidly as possible, using the fingers and hand, the membranes were ruptured and an attempt made to apply the forceps, but could not get them on the head. As Dr. Allen's hand and arm were about exhausted we exchanged places. I passed my hand into the womb, got hold of the feet and delivered the child (dead) by version very easily. We then gave the woman a teaspoonful of fluid extract of ergot by the mouth, atropine sulphate, gr. 1-150 hypodermically, and an enema of hot salt solution; tried to excite uterine contractions by manipulation and pressure. The woman recovered from the anesthetic, recognized Dr. Allen and myself, spoke to her husband, rested quietly for a few moments. We began to think we had won the battle, when suddenly she started up, said "I am going to die," bade her husband good-bye, told him to be good to the little children, and immediately expired. This case made a profound impression upon my mind. I have always thought that if this woman had been delivered sooner we would have succeeded in saving her life.

Two Hemorrhages in the Same Woman

Case 2. Mrs. B., age 39. Eighth pregnancy. All her former labors had been normal. I was called on the night of December 5, 1901. Patient lived four miles in the country. When I arrived there she was

having fairly good pains; said she was at full time. She was flowing considerably. Upon examination I found the os dilated about one inch, with the head in the L. O. A. position. I could distinctly feel the thick border of placenta just above the internal os on the left side; it was from this part the blood was coming. It was a very cold, stormy night; I was four miles from the nearest doctor, no telephone in the neighborhood. I thought if the pains would come on strong and frequent the head would engage and arrest the hemorrhage by compression. I gave her one dram of the fluid extract of ergot by mouth, 1-30 grain of strychnine sulphate with 1-100 grain atropine sulphate hypodermically, and tried to stimulate contractions by stretching the os where it was free from placenta. The pains came on almost immediately with great force, the cervix dilated nicely, the head engaged and the bleeding was almost entirely checked. The woman complained of some dizziness and considerable thirst; she was given all the cold water she wanted. In one hour and a half a large living male child was born. The hemorrhage immediately began again; without stopping to cut or tie the cord, I at once delivered the placenta which was done without any difficulty. The uterus contracted and there was no further bleeding. The woman made a quick recovery; was up around the house at the end of a week.

About four o'clock on the morning of April 5, 1904, I was called to attend this same woman again in labor. Arriving at the house I found her at full time; she was having feeble pains and "flowing" more than before. Upon examination I found the condition the same as the previous labor, except the border of the placenta was a little lower, partially over the internal os. I gave her ergot, strychnine and atropine as before. The pains did not come on very strong, so I ordered some strong coffee for her; tried to dilate the cervix a little, carefully. This treatment seemed to stimulate the contractions a little but they were not strong enough to make the head engage; the hemorrhage was increasing. I informed the husband that the case was very serious, and the only

chance for her life a rapid delivery. He told me to use my own judgment; he was sure I would do what was for the best. The services of two of the neighboring women was secured. I administered chloroform, placed the woman across the bed, intrusted the anesthetic to the husband; each of the women held a limb. The os was quite low in the vagina, I had no difficulty in reaching it with my thumbs. Almost full dilation was accomplished in a few moments, membranes

ruptured, forceps applied and a medium-sized living female child was delivered. As the hemorrhage was now slight I did not hurry the delivery of the placenta. The patient made a good though somewhat protracted recovery. Mother and children are alive and well today. I believe it was prompt action that saved this woman's life—if I had waited to get skilled assistance from town, I am certain the results would not have been so good.

PUERPERAL ECLAMPSIA TREATED ALKALOIDALLY

A severe case of this disease, occurring in a primipara;
forced distension of the os and delivery of a dead child;
alkaloidal treatment and how and why it succeeded

By H. R. POWELL, M. D., Poughkeepsie, New York

ON December 25, 1906, I was called to attend Mrs. C., age 22, primipara, pregnant twenty-nine weeks. My first call was made about 7:30 a. m., when I ascertained that during the greater portion of the preceding day and night she had experienced irregular and intermittent uterine contractions, which gradually but slowly became more severe. A fair amount of dark-colored urine had been voided during the night, but no movement of the bowels had occurred for two days. She complained of a moderate pain in the epigastric region and a very intense pain over the portal region, with slight disturbance of vision. The os was dilated to about the size of a 25-cent piece and was very tense. I ordered an enema of hot water and table salt, a hot sponge-bath, and left three 10-grain doses of chloral hydrate, to be given at half-hour intervals, providing the patient did not sleep. I returned at 10:30 a. m., and found her in a well-marked convulsion which I readily controlled by the use of inhalations of chloroform. The pulse was rapid and weak, and she had not slept.

The Delivery of a Dead Child

The pains had decreased in severity in a marked degree and the os was slightly dilated beyond the point noted at my first call,

extremely tense and the amniotic membrane found intact.

By forced distension I finally dilated the os to about the size of a small orange, giving chloroform in moderation whenever a contraction occurred. I then attempted to apply my long Elliot forceps, but repeatedly failed to place in position the second blade.

Realizing the desperate condition of my patient, I despatched messages to two other physicians, and we finally succeeded in delivering a dead child from a mother nearly so. Placing the patient on her back with her head inclining toward the floor and supported by her husband, I gave hypodermically atropine and strychnine, one dose of 1-150 grain of the former and 1-50 grain of the latter, followed by 1-100 grain of glonoin every ten minutes until the face flushed and respiration began to improve, which was not until nearly an hour had elapsed, but by which time she had not regained consciousness. Slight twitching of the extremities occurred at this time, about 4:30 p. m.

In about an hour she was able to swallow, and I left granules of veratrine, one to be given every half hour until complete relaxation occurred, then every hour until my next visit at 8:30 p. m. The desired

effect took place about 7 p. m., and on my visit I found her resting comfortably. I catheterized her and found almost no urine in the bladder and ordered another enema of hot salt solution and one granule (gr. 1-134) of veratrine hourly unless she slept. She had a comfortable night.

The following morning I catheterized her, removing from the bladder about three ounces of very dark and foul-smelling urine. Ordering one-half teacupful of hot milk given every two hours, and another hot sponge-bath and an enema of hot salt solution, and continuing the veratrine hourly, I called at 3:30 p. m., at which time I found her asleep, with pulse and respiration about normal.

The Veratrine is Continued

The veratrine thereafter was given every two hours for four days, which, together with the hot milk, started active elimination, resulting in the urine becoming more normal as to appearance and amount.

She was then given veratrine every four hours and a tablet of cactin every three hours for three days, when the discharge of urine became profuse and of much lighter color.

She was given no food except milk for about ten days, when celery, lettuce, oat-

meal gruel and milk-toast were allowed besides the milk.

The morning after the birth her temperature went to 103.4°F., resuming the normal very slowly until two days had elapsed, when it was 98.2°F.

As soon as I was able to obtain a specimen of the urine free from the lochial discharge I found everything normal except that the specific gravity was 1014, and there was a trace of albumin.

I had examined her urine about six weeks prior to confinement and found it normal. She had not furnished a second specimen because her urine up to the time she had pains apparently had been normal, both in amount and physical characteristics. She had not a symptom of threatening eclampsia until labor began. In the event of ever again having a similar experience, I shall give veratrine up to its full effect, for I regard it as being the very best known sedative and eliminant in such cases. The patient is far from being what might be termed well. In full-blooded patients with eclampsia I should not hesitate to bleed—in the past I have had excellent results in two such cases.

In the future I shall insist upon frequent examinations of the urine preceding labor.

::: SURGICAL THERAPEUTICS :::

ACETONURIA

This has been attracting considerable attention of late because it is claimed that some deaths following inhalation of ether are due to this condition rather than to the anesthetic. Acetone is found in small quantities in the blood and in normal urine, but is very abundant in certain stages of diabetes and sometimes following high fever.

Acid states of the urine are very important in surgery, without doubt; and if urinary analysis prior to operation shows an abnormality (particularly diabetes) there should

be great hesitancy about performing operations not absolutely imperative.

The dangers of acetonuria, too, should be kept in mind when contemplating operation upon patients suffering from profound mental depression, especially melancholia, since it has been shown that imperfect oxidation underlies most of the depressed psychoses, like melancholia, and the depressed phases of the compound psychoses; that acetone, diacetic acid and betaoxybutyric acids are suboxidation products.

In epilepsy and parietic dementia, too, there is the same imperfect oxidation; but in diabetes it is, of course, worse. Therefore

in all such cases before operation careful uranalysis should be the universal rule.

The normal degree of urinary acidity is from 30 to 45; if it fall below 30 there is either imperfect production of the acid or imperfect elimination. In the first event, imperfect oxidation is present; in the last, acid-accumulation with all its possibilities is imminent. (Butler.)

In insanity due to head injury a period of seeming mental quiescence may be followed by attacks of vomiting, purging, semicoma and return of insanity. The rash surgeon wishes to operate; but examination shows urinary acidity of as low as 10; after subsidence of the acute symptoms, under eliminative treatment, the acidity will increase to 45; then operation is safe.

The same phenomena have been noted following heat-stroke and severe shocks of electricity; so if operation be indicated after either of these the urine must be examined, and if found deficient in acidity, postponement is advisable.

Patients presenting acetonuria as a prominent feature after operation pass urine of a marked "fruity" odor (likened by some to the smell of chloroform), cannot be aroused and finally die in coma. This is especially likely to occur after cancer, a disease prone to the formation of excessive quantities of acetone. Bicarbonate of sodium is perhaps the best drug to employ, plus laxatives. In diabetes prompt relief follows a freer use of carbohydrates.

ASCITES

Abdominal dropsy is most conspicuous in cirrhosis of the liver, in which cases there is a clear, yellow, thickish fluid which coagulates on standing. When accompanying kidney lesions it contains urea. If due to carcinoma it is bloody or turbid and contains shreds. In peritoneal tuberculosis it is like water. When there has been rupture of the chyle-duct it is whitish and contains chyle. From papilloma of the ovary it is like that of cancer. In heart lesions it is associated with general anasarca, or at least swelling of the legs.

Therapeutic measures directed to the hydrops alone are seldom indicated—the proper treatment invariably is to discover the cause and apply appropriate remedies, or to institute proper operative measures (like the Talma-Morrison operation for cirrhosis of the liver, simple abdominal section for tuberculous peritonitis, excision of papilloma, etc.). When the accumulation is so great as to interfere with respiration the fluid may be let out through a sterilized trocar and canula (taken right out of the boiler and not permitted to touch anything on its way to the already cleaned belly-wall). It should be done under cocaine anesthesia. There is, generally, entirely too little pains taken in "tapping" to secure ideal aepsis.

ACHONDROPLASY

This is a name given by Parrott to a form of fetal rickets in which the limbs are short and their bones curved where they should be straight, and the natural curves exaggerated, with absence of the proliferating zone of cartilage at the junction of the epiphyses. It is very like fetal cretinism. Fortunately most of such children are born dead. Should they survive, syrup of hypophosphites may be given *ad libitum*. Later, attempts may be made, as in rickets, to correct the deformities.

ACTINOMYCOSIS OF THE APPENDIX

Strange to say, actinomycosis may affect the vermiform appendix. The fungus of streptothrix (actinomycosis) enters the body by the alimentary canal and may attack the appendix in one of two ways: (a) as a simple streptothrix infection or (b) as a mixed infection with staphylococci or colon bacilli. In the first the symptoms closely resemble those of any other appendicitis; in the second form they are much more severe; rigors and septic pyelophlebitis being relatively common, although quite rare in suppuration about the appendix. The points of value in arriving at a diagnosis of non-suppurating streptothrix in-

fection of the appendix are a long history of slight indefinite pain in the appendical region, the relatively large amount of induration, and if operation is performed the small quantity of broken-down material. In the suppurating form the early occurrence of rigors and the pointing of abscesses at a distance from the appendix are in favor of actinomycosis. Early operative treatment, in connection with free drainage, with the administration of large doses of iodide of potassium or arsenic, is advised.

BUBOES: PHENOL FOR

When buboes are seen very early, before any great amount of redness of skin is present, the skin may be frozen with chloride of ethyl, and 10 drops of a solution of phenol injected to the middle of each enlarged gland; the solution being of this strength:

Phenol 0.5 (grs. 8)
Distilled water.....32.0 (oz. 1)

The skin should be carefully scrubbed and washed with ether or alcohol before the needle is introduced, and the needle itself should lie in alcohol five minutes before using and then be passed through an alcohol flame on its way to the gland; and the fingers should then not touch the needle until the injection is made—otherwise a staphylococcus infection may result, with extensive suppuration.

PRURITUS ANI

Nearly all cases of persistent itching of the anus may be traced to one of these causes:

- (1) The most common is superficial ulceration or abrasions of the anal canal.
- (2) Catarrhal diseases of the rectal mucosa which cause discharge from the anus.
- (3) External hemorrhoids or skin-tags which prevent proper cleansing of the parts.
- (4) Small polyps of the anal canal, protruding internal hemorrhoids, prolapse, fissures, etc. The treatment consists (in addition to removing the cause) in restoring the altered perianal skin to the normal.

For this purpose nitrate of silver followed by citrine ointment are the best applications. Pruritus is also caused by the irritating discharges from long-retained fecal accumulations in the cecum or colon.

ADENOIDS

“Adenoid vegetation” is an expression applied to hypertrophy of the glandular tissue normally found in the nasopharynx. When excessively developed this condition leads to mouth-breathing, more or less impairment of hearing, and muffled voice; in the worst cases the open mouth, vacant expression of face and general listlessness are unmistakable to the trained eye. If not corrected, serious mental deficiency may result, as well as enlargement of the tonsils, aconuresis and masturbation, with deleterious influence upon the bodily development. Under chloroform they may be removed by curet, or even by the fingernail. No local medication will do any good. Anesthesia by nitrous oxide or by ethyl bromide answers well for such operations, where only a brief anesthetic period is required.

ANTISEPTIC DUSTING POWDER

To replace the costly proprietary articles used for dusting on wounds the United States Pharmacopeia recommends “thymolis iodidum”—iodide of thymol. It is now prepared of standard U. S. P strength by all leading manufacturing chemists and can be obtained on prescriptions from all first-class druggists.

ARTERIES: WOUNDS OF

When one of the smaller arteries is cut or torn it must be either ligated, twisted or obliterated by pressure. But if in the course of an operation a very important vessel, like the femoral, axillary or internal carotid be cut into, unless completely severed, it should be repaired by fine cat-gut stitches through adventitia, musciosa and intima, all knots being upon the out-

side. Then when it is seen there is no leakage, the sheath of the vessel must be sutured carefully over the point of junction and the wound closed with a firm bandage. If asepsis has been perfect, healing may be obtained; if not, secondary hemorrhage is likely to occur and must be met by temporary firm pressure by nurse and prompt ligation by surgeon.

DILATING THE OS IN PREGNANCY

It is still a moot question how best to dilate the os of a gravid uterus when necessary to deliver before labor comes on. Davis describes the methods that are advisable in dilating the uterus in the later months of gestation as for toxemia, placenta prævia and premature separation of the normally situated placenta. In the toxemic cases are not included those due to the nephritis of pregnancy, but merely those of acute toxemia of hepatic origin with altered pulse-tension, nervous disturbances of toxemia and the evidences of blood-disintegration which accompany the condition. In such cases the uterus should be emptied as soon as consistent with safety, and for rapid dilation it is preferable to use bimanual dilation with one or more fingers of each hand working synchronously in opposite directions. If unmanageable by the fingers, Bossi's dilator employed to one-half or two-thirds of its full capacity for from thirty to forty-five minutes, with anesthesia, has so far proven harmless and efficient; except in rare cases, full dilation with the instrument should be avoided. In many of these cases the patient is too far gone for anesthesia to be safe, and it should be avoided when pulmonary lesions are present. In placenta prævia the hand is also the best instrument for dilation. As a rule the elastic bag is too slow in operation in these cases, just as it is in toxemia. Bossi's dilator is a dangerous instrument to use in the vascular, softened cervix of placenta prævia. In premature separation of the normally situated placenta, immediate delivery is called for, and cesarean section, vaginal or abdominal, is the operation de-

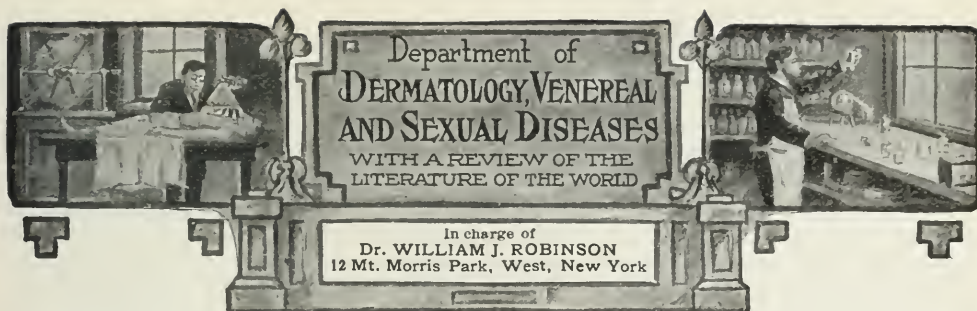
manded. If this can not be done, multiple incision of the cervix followed by rupture of the membranes and dilation by the hand as rapidly as is consistent with the integrity of the mother's tissues, should be chosen. With the patient in good condition and not much hemorrhage, Bossi's dilators and the hand may be sufficient. The importance of complicated cases of labor cannot be too strongly emphasized, nor can the necessity of skilled and surgical assistance in such. The general practitioner should not depend on himself alone in these cases any more than he would in appendicitis or strangulated hernia requiring operation, and whenever possible such cases should receive attention in a hospital.

DURATION OF PREGNANCY

Germany now has a law which fixes the question of legitimacy. Any child born as early as 181 days after the marital relation is legitimate; also one arriving as late as 302 days after intercourse is to be regarded as of lawful parentage—certainly a wide latitude. This is particularly notable as to the longer period, since it is generally believed that for primiparæ 272 days is the exact period of gestation and 280 for others, with a possibility of 285.

PERITONEAL TUBERCULOSIS SIMULATING TUMOR

Rarely the abdominal dropsy accompanying tuberculosis of the peritoneum so closely resembles a huge ovarian tumor that experienced operators are deceived. Of course incision reveals the true character of the trouble. No harm has been done, either, since merely opening the abdomen freely, evacuation of all fluid, sponging out of the abdomen and closure without drainage cures a large proportion of cases of tuberculosis of the peritoneum—probably through the influence of the patient's mind as well as the formation of obliterative adhesions from the manipulations.



URETHRITIS: SIMPLE AND SPECIFIC

With special reference to its correct diagnosis, its course, its complications and sequels, and its successful treatment. A practical consideration of an important subject

By CHAS. A. McNEILL, M. D., Dallas, Texas

MANY physicians do not pay sufficient attention to gonorrhea, and with this in mind I desire to emphasize the necessity of being attentive to each and every case.

In practice we meet the sore penis so often that some of us would perhaps insist that "clap" is an inheritance left the average American youth who on various excursions shows his generous disposition by scattering his legacy among the "soiled doves" with whom he frequently mingles.

We have often heard the remark, "I would just as soon have the clap as a bad cold." To one who has had both this is a most absurd statement; but to one who is yet to be initiated it will serve to cause disappointment later. The result of the disease on the various organs of the body is only too well known to the physician, and many times he experiences the feeling that the removal of the "caudal" appendage would prove a beneficent act. Even the old men are not far behind their youthful colleagues, for we often hear the "water-closet" tale from some old sage who still does service and prides himself on his "neatness and dispatch."

In every case of urethritis we should make a microscopic examination of the discharge, to see whether it is a simple or

specific case, and not until then should we give our diagnosis. Cheerful is the man who, suffering with simple urethritis, is treated for "clap" and, of course, cured in a short period of time. We can imagine the dissatisfaction in this man when he finally does contract real gonorrhea. He will blame the doctor for his slow progress and the severity of the case, he will change physicians, make the rounds of the profession, and finally, disgusted, quit all treatment, a worn-out chronic, financially embarrassed and an utter pessimist.

Certain instances have been recorded where divorce suits have been filed, the sole cause given being that the husband had a discharge from his penis, which some "doctor" had pronounced "clap" with the husband strenuously insisting that he could have contracted it only from his wife. Poor woman! The victim of a doctor's ignorance she is now subjected to mortification and disgrace, while had the physician been familiar with the types of urethritis, the discharge in the man would have been found free from specific qualities; but also, perhaps, further investigation would have revealed the husband as the actual offender, as having been given to excessive sexual indulgence or of alcoholics. These facts alone should impress one with

the necessity of fully understanding the two divisions of urethritis.

Urethritis: Its Varieties, Cause and History

Urethritis may be defined as an inflammation of the urethra. It is divisible into two classes, namely, simple non-specific urethritis, and specific urethritis. Simple non-specific urethritis is a result of other than the gonococcus of Neisser, while specific urethritis (synonyms: gonorrhea, clap, etc.), is a continuous purulent inflammation of the mucous membrane, resulting from an inoculation with the gonococcus of Neisser.

The word "gonorrhea" is a misnomer, it being derived from the Greek word which means a flow of semen, for it was formerly supposed to be a discharge of seminal fluid.

History of the earliest times establishes the fact that the disease is not of modern origin. The 15th chapter of Leviticus is thought by some to refer to the disease. When Moses of old established circumcision, he in a great measure (though himself unaware) lessened the chance of infection. The ancients had their "favorite prescriptions," both to prevent the disease and to cure, which were remarkable in their composition and mode of administration.

Simple Non-Specific Urethritis

As to its *etiology*, it may result from: (1) Traumatism direct as a result of passing instruments, such as sounds, catheters, etc., or other foreign bodies, such as calculi becoming lodged and causing inflammation of the urethra; (2) continued sexual excitement or indulgence have caused mild urethritis; (3) alcohol used in excess; (4) masturbation; (5) uric acid. Urine containing an excess of uric acid has been stated as a cause; (6) certain drugs, vegetables and drinks, as arsenic, asparagus and beer, have the power of producing simple urethritis; (7) discharges, such as leucorrheal, menstrual and other discharges of non-specific nature, are listed among the causes of the mild form of the simple

urethritis; (8) infectious diseases, such as smallpox, scarlet-fever and diphtheria have caused it.

Symptoms.—In simple urethritis we have pain, frequent micturition, thin discharges, lips of the meatus slightly stuck together, some pus, and a tenderness along the canal.

Course.—From one to two weeks, depending much upon the cause and the hygienic conditions of the patient.

Prognosis is always favorable. Most cases would get well if the parts were kept clean.

Treatment.—The treatment should embrace both local and constitutional remedies. One should determine the cause of the attack, then direct the treatment accordingly.

Constitutional Treatment.—The urine should be kept bland. Saline laxatives for the bowels, and the fluid extract of buchu or oil of santal have a good effect on the irritated mucous membrane.

Local Treatment by Injection.—Employ some mild astringent, such as a saturated solution of boric acid or a weak solution of acetate of lead.

Specific Urethritis

Specific urethritis is the result of coming in contact with a surface containing the gonococcus of Neisser. (Of course, certain conditions favor infection, such as adherent prepuce, long foreskin or a present infection with the non-specific urethral microorganisms.)

It may be acquired (a) by direct contagion, as during coitus, (b) by indirect contagion, as through the passage of an infected sound, catheter, speculum, syringe, or contact with infected linen, etc., or (c) it may be the recurrence of an "old case" which has remained latent for months or years, yet under favoring conditions, such as excessive venery, stimulating drinks, etc., again comes to the front with renewed aggressiveness.

Bacteriology.—After years of patient study, by many careful observers, it remained for Neisser to isolate, in 1879, the germ which

be named the gonococcus of gonorrhea. Later investigation by Weiss, Burm and others of the later period have removed all doubt as to the importance the germ plays in gonorrhea.

The gonococcus possesses special characteristics in that it is always found in pairs, is the largest of all diplococci, and grows better in an alkaline medium. It is of the coffee-bean shape and unlike other cocci in that it is not motile. The specific characteristic properties are that it will not stain by Gram's method. Investigation has proven that it prefers to grow on cylindrical epithelium, as is evident in women afflicted, the germ attacking the urethra rather than the vagina on account of the difference of cells composing the membrane, while besides the slightly acid mucus of the vagina hinders its growth. Also the resistant power of the pavement-epithelium which lines the vagina being tough and horny proves a barrier.

This gonococcus is always present in gonorrhea from the "start to the finish," no matter of how short duration or how prolonged the disease may be.

Pathology.—The mucus membrane is in a state of congestion and bathed with a secretion varying in consistency from a thin to a purulent discharge which is often mixed with blood. The membrane is frequently eroded, and localized ulcers may be present. The capillaries will be found dilated, and the phagocytes quite active attacking the germs. The disease spreads rapidly and at the end of between seven and ten days it reaches the posterior part of the canal.

In complicated cases we have an extension of the disease involving the prostate and Cowper's glands, the seminal vesicles, the vas deferens, the epididymis, the testicle, bladder, ureters, and pelvis of the kidney. In the female there may be involvement of the uterus, fallopian tubes, ovary, pelvic disturbances, etc.

Location may be anterior or posterior.

Anterior urethritis means infection from the meatus to the bulbous portion of the urethra.

Posterior urethritis is infection in the prestatic and membranous portion of the urethral canal.

Incubation.—The period is variable, depending on existing circumstances from twenty-four hours to fifteen days. In the greater number of cases it is between five and seven days, those developing in from twenty-four hours to four or five days being milder, on account of previous infection. Perhaps it is only a recurrence of an "old case" having been brought on by excessive venery, alcoholics, etc.

Symptoms are both local and constitutional and will depend upon the stage, location and severity of the disease.

Stage of Invasion.—This is represented by the stage distinguished as anterior urethritis, and the local objective symptoms are: The penis will present an "cut-of-sert" appearance. The lips of the meatus will be pouched and stuck together and slightly red and swollen. The discharge at first is scanty, but soon becomes thick and creamy, possibly of a greenish color, and may be mixed with blood. In these cases with an elongated prepuce, or in those who are not overcleanly with their organ, we may find foreskin swollen even to a degree of phimosis, or perhaps paraphimosis may be the condition present.

Constitutional Subjective Symptoms.—The invasion may be preceded by a chill accompanied with nervous disorders, such as headache, malaise, lassitude, nausea, and a general depressed condition. There is itching and burning of the meatus, micturition is frequent and accompanied by a stinging pain, sometimes very severe in nature, or after urination the urethral tract may feel scalded. As the disease advances to the seventh or ninth day, the local symptoms become aggravated as a result of the disease now extending to the bulbar portion of the canal, and the discharge now is more profuse and possibly mixed with blood. As the constitutional symptoms become more pronounced, the patient grows more languid, loses appetite, and complains of a "don't-care" feeling.

Under proper treatment the symptoms will gradually subside, the discharge disappears, and in the course of twelve or fifteen days from the onset only small drops or agglutination of the meatus will be noticed in the morning. A cure will be the ultimate result after covering a period of from eighteen to thirty days. Relapses during this time easily occur.

Posterior Urethritis

There is more urgent and frequent desire to urinate, and heavy pains and peculiar sensations in the perineum or after urination a not unpleasant sensation is felt; dribbling of the urine is more pronounced.

To determine the location of the disease, apply the beaker-test as follows: Have two perfectly clean glass cups into which the patient will void the urine. If the contents of the first glass are turbid or contain shreds while in the second they remain clear, you then know the disease is confined to the *anterior* portion of the canal, while if the contents in both glasses are cloudy or contain shreds (*tripper-faden*), it is known that the *posterior* portion of the canal is effected. To be certain of your diagnosis, you will satisfy yourself that the bladder is not afflicted, for in such a condition you would have the "shred."

Complications.—Among the early complications we have retention of urine (resulting from the temporary occlusion of the canal, the patient having held back the urine and thus the expulsive power of the bladder being paralyzed for a time), hemorrhage, paraurethral abscess, cystitis, epididymitis, spermatoecystitis, acute prostatic infection, orchitis, rectal infection, phimosis, paraphimosis, and gonorrheal arthritis.

Late Complications.—In addition to the above we may have pyelitis, stricture, chronic cystitis, impotency, sterility, neuritis, myelitis, endocarditis, gleet, etc.

Diagnosis.—Posterior urethritis may be distinguished from simple urethritis, balanitis, cystitis, and abscesses, since we have the complete series of symptoms of

gonorrhea, in addition to the infallible presence of the gonococcus of Neisser.

Prognosis in the uncomplicated cases is usually favorable, especially with the correct treatment where the patient shows an inclination to carry out his part of the program. Of course, in the complicated cases we must be governed by the severity of the complication and conditions present.

Treatment.—When called to treat a case of gonorrhea the organ should first be examined. This will enable the physician to determine existing complications and stage of the disease. Be particular to emphasize the necessity of closely following all directions. The patient should be impressed with the fact that gonorrhea is never mild and that many times it requires not only days but weeks to bring about a cure.

He should be instructed in the manner of taking an injection and cautioned as to the danger of being careless with his toilet. Many do not know that the disease can easily be carried to the eyes by the hands or infected linen or that infected cotton and similar material might easily be picked up by some child and contract gonorrheal ophthalmia as a result. An injection should always be taken immediately after urinating and if possible the urethra should be cleansed with a saline solution, for you must have a surface free from pus before your treatment will prove its worth. The remedy should then follow and be retained for a period of five minutes. Never use anything to plug up the meatus. Allow it to drip on absorbent cotton into a pouch which is drawn up around the penis.

A suspensory bandage should be worn during the entire course of the disease, and the patient should be warned as to the danger of violent exercise or work while undergoing treatment. Such advice if followed will prevent complications. The diet should be regulated. Alcoholics and meats should be excluded, a light diet being best. Water is one of the best diuretics and should be drunk freely.

In ordinary cases the following prescription is useful, in connection with injections, from the fact that it prevents the extension

of the disease, is a mild diuretic, and at the same time is destructive to the gonococcus:

Methylene-blue (Merck) . . . dr. 1 (60.0)

Nutmeg dr. 1 (60.0)

M. ft. capsules No. 30.

Directions: One capsule four times daily.

In complicated cases, where we have an extension of the disease, namely, cystitis, etc., urotropin, in 5-grain doses several times daily, has proven quite useful.

In these cases, where the urine is highly acid, a scalding sensation will be experienced during micturition. This may be corrected by giving some mild alkali, such as common bicarbonate of sodium in teaspoonful doses before meals. Should the urine prove irritating or there be a too frequent desire to urinate, give

Salol drs. 2 (120.0)

Oil santal, pure . . . drs. 2 (120.0)

Oleoresin cubebs . . . drs. 2 (120.0)

M. ft. capsules No. 30.

Directions: One capsule four times daily.

Flushing the urethral tract with hot permanganate of potassium (Merck) solution, in varying strengths, daily, using at least one quart in a "Valentine irrigator," has many warm advocates. This treatment is of course administered at the office, while the patient may be given the following prescription:

Alphozone solution (Stearns), 1 : 1500, as an injection several times daily.

This drug is non-irritating, possesses strong germicidal properties, and is non-toxic.

Late stage: In chronic urethritis, or gleet, massage of the seminal vesicles or prostate may be quite necessary. All strictures should be dilated. Pass the sounds even though the patient does not give a history of stricture. The office treatment should immediately follow, viz., deep instillations of argentic nitrate—1 : 250 or 1 : 500—with an Ultzmann-Keyes syringe. This gives most excellent results, the patient using in connection with it the following injection:

Argyrol, 10-percent solution, as an injection four times daily, retaining for a period of at least five minutes.

This treatment should insure a cure in the course of four or five weeks, but remember, the patient should never be dismissed so long as shreds appear in the urine.

Prophylaxis is of the highest importance from more than one point of view. Much can be done to prevent the occurrence of gonorrhea if one but observes the hygienic laws alone. (He who does right need never fear the consequences.) After coitus the organ should be carefully washed with an antiseptic solution, while the surgeon should always be careful to see that all instruments, linen, etc., are fully sterilized when he is operating upon a patient.

LUES: THE MOST PROTEAN OF DISEASES

Syphilis, or lues, is a disease of many names, many forms and many expressions. Something about its history, the parasite that causes it, its different stages and its treatment

By WILLIAM J. ROBINSON, PH. G., M. D., New York
Editor of the Critic and Guide, Therapeutic Medicine and Altruism

NO other disease has so many synonyms, so many aliases, as has the disease which we are about to discuss. There is hardly a nation after which the disease has not been named, for every nation was anxious to bestow upon some

other nation the high honor of having introduced that terrible plague into Europe. Thus we have the most common name—*morbis gallicus*, or the French disease; *morbis hispanicus*, or the Spanish disease; *morbis italicus*, the Italian disease;

morbus polonicus, the Polish disease; malum americanum, the American sickness; morbus neapolitanus, the Neapolitan disease, etc., etc. It is also rather remarkable that the disease was named after different saints—not less than twelve in number; so, it was called morbus St. Jobi, morbus St. Menti, etc. In the Latin language alone the disease has considerably more than a hundred synonyms and each modern language boasts of half a dozen to a dozen names. The two most universally used names, however, are syphilis and lues, the latter name being particularly used by the German and Austrian physicians.

The temptation is great to go into the history of the origin and spread of this disease; I should be glad to launch on the discussion as to whether syphilis has been known in the old world for centuries, whether it has existed even in prehistoric times, or whether it has been brought into Europe at the end of the fifteenth century by the crew of a certain admiral Cristoval Colon, alias Christopher Columbus, after their return from a memorable journey—a journey but for which we might not be sitting *here* and writing articles and treating patients. The temptation is great to go into a discussion of the etymology of the word syphilis, to reproduce here Fracastor's famous poem, to go into the question—now of historic interest only—of the “unicity” or “duality” of the chancre and chancroid. But we must not yield to our temptation—in informal chats particularly—or we should never get through. We could write a ten-thousand page volume on the subject; but as this is not the proper place, we shall have to keep within proper bounds and plunge at once *in medias res*.

The Three Stages of Syphilis

Though it is now well known that the division of syphilis into three stages, as given to the world by its most famous syphilographer, Ricord, does not always hold true, that lesions classed as distinctly tertiary may occur in the secondary stage, and vice versa, and that the lesions of all the three stages may coexist, still for the

purpose of convenience, the division will be retained. It is well, however, to emphasize the fact that no sharp line of demarcation exists between the three stages.

The primary stage is itself divided into two substages. The first substage is from the infection to the time of the appearance of the chancre. The average length of this period is fourteen to twenty-one days, though of course it may vary between wider limits; it may be occasionally as short as ten days (or even five, though we never had a case with a period of incubation less than ten), or as long as thirty, forty and fifty days, and Fournier reported a case in which seventy days elapsed between the day of infection and the day of the appearance of the chancre. The second substage, or second, period of incubation is counted from the time of the appearance of the primary lesion (chancre) to the day of the appearance of the roseola, or eruption. The *average* length of this period is six weeks, but it may vary, in rare cases, from three weeks to three months.

The lesions of the primary stage are the chancre and the syphilitic bubo, or swelling of the glands and lymphatic vessels which are in anatomical relation with the primary lesion.

The Secondary Stage

The secondary stage, the advent of which may be expected at about the end of the sixth week (limits: three weeks to three months, as previously stated) is the stage of cutaneous and mucous-membrane lesions. It is characterized by multiform eruptions of the skin, by mucous patches, by falling of the hair, by a general glandular and lymphatic enlargement, by ocular troubles, etc. While the duration of this stage is generally given between one and two years, no definite time-limit can really be named, for the length depends so much upon the thoroughness of the treatment, the virulence of the infection and the mode of life and constitution of the patient.

Can a patient be entirely free from the secondary stage? In textbooks and in periodical articles we generally meet with

the statement that if a patient with tertiary lesions strenuously denies ever having had secondary manifestations, he either lies or the eruptions were so slight and mild that they passed by unnoticed. We disagree with such statements. There is no reason why a man syphilitically infected should not escape the secondary stage altogether. This may be due to treatment instituted at the first appearance of the chancre, or it may happen without any treatment whatsoever. There are no iron-clad rules in medicine, and dicta of authorities often go astray. There was a time when it was thought that a patient *must* go through a tertiary stage. We now know that there are thousands of syphilitic patients who by careful treatment and hygienic living go through life without having a single tertiary manifestation. And so it may be with the secondary stage. In other words, a patient may have an undoubted syphilitic infection (undoubted through the character of the primary lesion and through *confrontation* with the guilty partner) and never develop the secondary or tertiary stage, or he may develop secondary symptoms, but never have any tertiary manifestation, or he may have the latter, but skip the former.

The Tertiary Stage

The tertiary stage is characterized by gummata, by various ulcers, by affections of the bones, the viscera, nerves, brain and arteries. This "stage" may make its appearance in a year or two (generally two) after infection, it may make its appearance in twenty or thirty years, or the patient may escape it altogether. It may last a few months to a few years or it may accompany the patient to his grave.

The Primary Lesion: The Chancre

This signal that informs us, alas too late, that a constitutional luetic infection has taken place is known under the name of chancre, Hunterian chancre, hard chancre, or *ulcus durum*, primary sclerosis, initial lesion, infecting chancre, etc. The most characteristic feature of the chancre is its

hardness; in many cases it is as hard as cartilage, and when the hardness is unmistakable and when adenopathy is present and the period of incubation is confirmatory of a syphilitic lesion we are justified in making a positive diagnosis. But as I stated in another place, many chancres are not characteristic and in such cases we must be very cautious before making a positive statement, unless the finding of the *spirochæta pallida* leaves no doubt on the question. As the search for the *spirochæta* in examining for syphilis will probably be obligatory in the near future—the patients are learning of these germs and are demanding of the doctor that he make sure of their presence or absence—it may not be amiss to devote some space to this subject.

What is the *spirochæta pallida*? It is a minute organism, belonging to the class of protozoa, spiral- or corkscrew-shaped, having often as many as fourteen turns, very thin and very motile. It can be seen with the highest powers of the microscope only. There is another *spirochæta*, called *spirochæta refringens*, similar in shape to the *pallida*, and which may readily be mistaken for the latter by the inexperienced. But the *spirochæta refringens* is thicker, has longer and fewer spirals and stains more readily and more distinctly. If one has seen typical specimens of both *spirochætæ* he will not be likely to mistake the one for the other.

The honor of the discovery belongs to Schaudinn and Hoffmann, both of Berlin. The writer was fortunate enough to be present at the meeting of the Berlin Medical Society at which the announcement of the discovery, with microscopic and stereopticon demonstrations, was made. The skepticism was quite general at first, but as corroborative reports began to come in from observers in all parts of the world, the skepticism gave way to unbiased expectation and then to pretty general acceptance.

Staining the Spirochæta

The staining of the organism is not difficult, but requires, of course, practice.

The smears must be *exceedingly* thin; with thick smears you may pretty confidently count on failure. The original stain with which Schaudinn and Hoffman worked is Giemsa's eosin, azur I and azur II stain (the stain is very difficult to prepare and must be bought ready-made), but Oppenheim and Sachs, assistants in Prof. Finger's Clinic, Vienna, reported a method which is quite simple and generally satisfactory.

The O. and S. method is as follows: The slides with the thin smears are dried in the air and dipped into a solution consisting of 10 Cc. of a concentrated alcoholic solution of gentian violet and 100 Cc. of a 5-percent aqueous solution of carbolic acid. The slides are then slowly dried by heating over a Bunsen burner. While the Giemsa method takes twenty-four hours, this method takes only a few minutes.

Later on Prof. Hoffmann and Dr. Halle reported on an improved method, which is as follows: (*Muenchen. Med. Wochens.*, No. 31, 1906): Take a flat glass dish about 5 cm. in diameter and place in it 5 Cc. of a one-percent solution of osmic acid. Place this in a petri dish. Then place several clean slides upon the first dish and expose for at least two minutes to the osmic acid vapor. The secretion to be examined is smeared rapidly (with a single stroke) over the exposed surface of the slide and then the latter is put back for another two minutes on the glass dish. The smear is now fixed, and is placed in a very weak, bright-red solution of potassium permanganate, washed off in water and dried with filter paper. It is then stained with eosin-azure exactly after the directions of Giemsa. The dark-red spirochæta can now easily be seen on the bluish red background.

Goldhorn's stain, which in many respects is superior to any other method heretofore used, is prepared as follows: One gram of lithium carbonate is dissolved in 200 Cc. of water, and two grams of medicinal methylene-blue are added. When completely dissolved, the solution is heated on the water-bath until a rich polychrome has formed. The solution is filtered through

cotton. One-half of this polychrome is carefully acidified with a 5-percent acetic acid solution until blue litmus paper shows a faint reddish tinge. The second half of the polychrome is added, and into this corrected dye a watery eosin solution of about 0.5-percent strength is poured until complete precipitation has taken place. This point is determined by filtering a sample from time to time till the filtrate is of a pale-blue watery color and slightly fluorescent. The mixture is set aside for a day, and is then filtered through a double layer of filter paper. The precipitate is dried slowly at about 40°C. When dried, it is dissolved in wood-alcohol, permitted to stand for a day, and again filtered.

To use this stain some of it is dropped into an unfixed preparation so as to cover; after two or three seconds it is poured off and slowly introduced into clean water, the preparation side turned down. When washed, the preparation is drained and dried in the air. The spirochæta pallida is stained a purplish color, which may be changed into a light-black or black-brown by treating the specimens with Gram's or Lugol's solution.

Is the Spirochæta the Acknowledged Cause?

Is the spirochæta pallida accepted universally as the etiologic factor of syphilis? Almost so. We remember when Dr. Hoffmann read his first paper before the Berlin Medical Society, he had great hesitancy in ascribing to the parasite an etiologic significance. In fact he disclaimed any such intention. But recently, before the International Dermatological Congress held in New York, September 9—14, he boldly declared that the etiologic relationship of the parasite to syphilis is no longer subject to doubt. We must not overlook the fact, however, that all attempts at culture of the spirochæta have so far proved unsuccessful. *En passant*, we will remark that those who do not believe in mercury would perhaps modify their opinion if they saw that the administration of mercury to a syphilitic subject (man or animal) causes a rapid diminution in the number of spirochæta present.

N. B. Though *spirachæta pallida* is the most generally used name for the bacterium of syphilis and is the name given it by its discoverer, Schaudinn, still the term *treponema pallidum* is considered more correct and is beginning slowly to gain currency.

Prevention of Syphilis

The pride of the physician of the future will consist not in curing, but in preventing disease. And if there is any disease in which prevention is of a thousand times greater importance than cure it is certainly syphilis. Of course the best preventive against syphilis is abstinence from illicit sexual intercourse. But as a rule this advice is listened to with perfunctory politeness or an ill-concealed cynical smile—and the patient goes off and takes his chances, and as long as human nature is what it is, it is our duty as true physicians and sanitarians to do what lies in our power, besides moral precept, to prevent the spread of this terrible disease. We must do it not only for the sake of the patients, but for the sake of their future wives and children, and for the sake of innocent outside victims. Fortunately recent experiments of Metchnikoff on monkeys and on a human being have shown that mercury possesses not only curative but also prophylactic properties. A 20-percent calomel ointment (calomel, 2 drams, lanolin, 8 drams) with which the member is anointed before coitus is the best prophylactic, though it would be rash to say, before many more painstaking experiments, that it is an absolute one. Of course this ointment protects only from infection *per coitum*, it cannot be used as a prophylactic against extravenereal infection, through kissing, mucous patches, etc., etc.

Treatment of the Initial Syphilitic Lesion

The temptation is very great with some physicians to destroy the chancre either by excision or through cauterization. Our advice is, don't. We have seen the most complete excisions of the chancre with total removal even of the affected glands,

and in not a single instance have we seen any modifying influence on the course of the secondary or tertiary manifestations. When the chancre appears, the virus is already circulating in the blood and in the tissues and removal of the former can do no good, in spite of the fact that the removal of the original depot, or nidus, of the disease may theoretically seem to be distinctly indicated. The most plausible theories must yield to facts and the facts say that excision or destruction of the chancre does no good and sometimes does harm. The only attempt that is permissible is to try to neutralize the virus of the chancre by injection of a solution of mercuric chloride into the substance of the chancre.

Treatment of the chancre is very simple: Have patient wash the lesion several times a day with a 1 in 1000 (grs. 2 to 4 ozs. of water) mercuric chloride solution and dust afterward with calomel. This is by far the best treatment and suffices in the vast majority of cases. Of course where the diagnosis of the specificity of the ulcer is not in doubt, the internal administration of mercury will aid in the rapid healing of the chancre.

I do not employ any other methods of treatment because this method has proven fully satisfactory. Other measures may become necessary only in those cases in which the patient comes to you with a badly neglected or too zealously treated sore, which shows phagedenic tendencies. Such cases are really "mixed chancres," i. e., chancres having a streptococcic infection engrafted on them, and cauterization is then necessary. Cauterize with pure liquified phenol (carbolic acid), protecting the healthy tissues with a little petrolatum and neutralizing the phenol with absolute alcohol. Or pure nitric acid may be used, but then the chancre must be anesthetized either with ethyl chloride or with a 10-percent solution of cocaine.

If the chancre is located behind a tight and narrow prepuce, two lateral incisions should be made through the latter, observing of course the most scrupulous antiseptic technic.

After the chancre has cicatrized, it is well to apply a small piece of emplastrum hydrargyri to the cicatrix, whether the induration persists or is gone, especially, of course, in the former case. The plaster need be changed only every three or four days, and its application may be continued for two months.

Syphilitic Adenitis

A syphilitic bubo does not suppurate; if suppuration does occur, it shows that an invasion of pyogenic bacteria has taken place. The treatment consists in applying strong mercurial ointment (unguentum hydrargyri U. S. P.). The overlying skin is first to be cleansed with green soap and water and then a little ether. Should suppuration take place, evacuation is necessary, but the application of mercurial ointment or of oleate of mercury (oleatum hydrargyri U. S. P.) must be persisted in. As a rule, however, syphilitic adenitis and lymphangitis can be prevented if, on the diagnosis of true chancre being made, the application of mercurial ointment or oleate to the glands and lymphatics in anatomical relation with the chancre is at once commenced. If the application is made gently though thoroughly, and the location is frequently washed with castile soap and water, no soreness of the skin need take place.

The treatment of the secondary and tertiary stages will be given in our next chats.

THE TREATMENT OF LUPUS BY THE GENERAL PRACTICIAN

Dr. Dreuw, of Unna's clinic, now of Berlin, has evolved a method of treating lupus which makes it possible for the general practitioner to treat the disease cheaply, easily and successfully. The method is as follows: The lupus patch which is to be treated is frozen by means of ethyl chloride (or by carbonic-acid gas if a deeper effect is desired) until it is snow-white. Over this frozen surface crude hydrochloric acid is rubbed thoroughly and with a certain degree of force. According to Unna it is advantageous to

saturate this crude hydrochloric acid with chlorine. The acid is applied in the following way: Cotton is wound around one end of a small wooden stick of about the size of a penholder; this is dipped in the crude hydrochloric acid and rubbed on the frozen surface, pressing slightly, till the nodules become of a grayish white color. This grayish white color occurs first where nodules are and then in the skin surrounding the nodules. In this way a large surface can be treated at once by a succession of applications of the caustic. If the patch is very large it is best to administer chloroform. The spots are then similarly thoroughly frozen, by preference with carbonic-acid gas, and then by the above-mentioned means the crude hydrochloric acid is energetically rubbed in. This freezing and cauterization under general anesthesia is especially suitable (1) in lupus multiplex and lupus exulcerans; (2) in lupus of the mucous membranes, the nasal cavities, the lips, and tuberculous abscesses and fistulæ (cauterize from six to eight times in rapid succession); and (3) where the freezing is not well borne by the patient (e. g., nervous and sensitive patients), or where very energetic cauterization is necessary, e. g., in tuberculous ulcers, lupus hypertrophicus and verrucosus.

In treating the nasal cavities during the anesthesia all the tuberculous tissue is scraped away with a sharp spoon and the bleeding is stopped with adrenalin. The posterior nares should be previously plugged. Then the nose is thoroughly cauterized eight or ten times with the wooden sticks dipped in hydrochloric acid. So many applications are necessary because the hydrochloric acid becomes diluted and neutralized by the blood. The crusts which are formed in the nose are removed every two or three days by softening them with oil and douching the nose. The after-treatment of all cauterized lupus areas consists in the application immediately after the cauterization of a disinfectant and astringent powder which is dusted on with a piece of cotton-wool. Eugoform, which is a condensation product of guaiacol and formalin, has been found to be the best. A bandage is usually unnecessary. Instead of

the powder after a few days zinc-gelatin or zinc-sulphur paste may be applied. One or two days after the surface cauterization a brown scab forms, which falls off in from two to four weeks.

To summarize the advantages of the method recommended by Dr. Dreuw, they are as follows: 1. The method is simple, cheap, rapidly effective, and gives good cosmetic results. 2. It can be carried on at home without hospital treatment, and that is especially important for patients of limited means. 3. Complicated apparatus is not necessary, therefore the method can be applied by any practitioner. 4. The method can be applied in all forms of lupus and in all situations, with the exception perhaps of the eye. Favorable results are obtained by repeated cauterization, especially in lupus of the n. sal cavity. 5. As a preliminary treatment for later Finsen treatment one gains time and gets favorable results.

THE TREATMENT OF GONORRHEAL EPIDIDYMITIS

Dr. John Milton Edwards (*N. Y. Med. Jour.*) thus outlines the treatment of epididymitis of gonorrheal origin. He believes absolute rest in bed is the first indication in the treatment of epididymitis. This is necessary both for the comfort of the patient and to prevent termination in suppuration or tuberculosis of the testicle. A brisk cathartic is given, preferably 5 or 10 grains of calomel, followed by a saline. After the scrotum is properly elevated hot applications are made, preferably with cloths saturated in hot water, to which may be added tincture of opium and Goulard's extract, this to be covered by gutta percha or oiled silk, and a hot water-bottle will keep the applications hot for some time.

A tobacco poultice made by adding one and one-half ounces of fine-cut tobacco to a pint of hot water and flaxseed, quantity sufficient to make a thick paste, will sometimes give relief, especially to those who are non-tobacco users. For the relief of the pain several leeches may be applied

along the inguinal canal to the scrotum, strict surgical principles being used in applying the leeches. For the extreme restlessness and sleeplessness nothing better can be used than opium in some form, preferably *cc* deine, 1-2 grain, and phenacetin, 5 grains; one of these powders can be given as often as every three hours. The hot applications should be kept up for four or five days, after which guaiacol may be applied in the shape of the following ointment:

Ichthylol.....	2.5 parts
Guaiacol	5.0 parts
Mercurial ointment.....	10.0 parts
Petrolatum, }	aa. q. s. ad 60.0 parts
Wool-fat }	

The ointment is to be applied on lint and then covered with non-absorbent cotton. This may be continued for a day or two, when the patient is allowed to leave his bed after having been fitted with a proper suspensory. Most of the suspensories made are absolutely useless. After having experimented with many makes Dr. Edwards has found that the most satisfactory is the elastic "Jock strap," which may be obtained at any surgical instrument or sporting-goods house.

The patient is directed at this stage to take a hot sitz bath for half or three-quarters of an hour daily. The guaiacol in the ointment causes considerable desquamation of the skin of the scrotum which at this time can be cleaned. He is then to reapply the ointment and is then allowed to go out of doors for a short time, not over three or four hours the first day; the time can be gradually increased.

At the end of ten days he is able to resume his work unless it be work that necessitates heavy lifting; if so, he is prohibited from engaging in any work until two weeks have elapsed, and he is to continue to apply the ointment and take the hot baths daily for a period of three weeks; at this time the ointment can be dispensed with; a nest of non-absorbent cotton is placed beneath the testicle, and the whole is supported by the "Jock strap" which he has worn constantly.

In treating transients or those who find it impossible to remain in bed, "strapping" the affected testicle enables them to travel and walk with comfort.

DIABETES INSIPIDUS TREATED BY ATROPINE

Dr. Fontana reports a case of diabetes insipidus in a child aged 4 successfully treated by atropine. Before treatment the child was drinking every quarter of an hour and getting no proper sleep. About 9 liters of fluid were taken during twenty-four hours, and 7 to 8 1-2 liters of pale urine of specific gravity 1002 to 1006 passed. There was no albumin, no sugar, and no abnormal elements present in the urine. The skin was very dry and abdomen swollen. On January 11 the atropine treatment was commenced, and continued until March. The drug was given by the mouth in a solution of 1 grain to 2 1-2 drams of water. Of this solution 1 drop, increasing to 18 drops per day, was given daily. The total amount of atropine administered during the course of treatment was 6 grains. No ill effects were observed beyond a slight skin eruption in the early days. At the end of treatment the child only drank 1 1-2 liters as against 9, and the urine passed only reached 1200 to 1400 Cc., and the specific gravity increased to 1010 to 1013. The abdominal swelling diminished, and the child put on over a pound in weight.

PHIMOSIS MISTAKEN FOR STONE

Prof. A. Broca of Paris reports the case of a boy of nine who was sent to him for operation with the diagnosis of stone in the bladder. The boy had been well until the age of six, but three years ago he began to complain of difficulty, at intervals, in urinating and of pain at the end of the penis radiating toward the hypogastrium. From the beginning of the trouble, three years ago, it was noted that during the painful attacks the end of the penis became swollen and purple in color. A physician who was then consulted seemed

to have recognized the condition. He believed the attacks by irrigations and wet compresses and the trouble remained in abeyance until a few months ago. At that date the symptoms reappeared and persisted without improvement, when a new physician diagnosed cystic calculus.

Yet, it would have been sufficient to look at the penis to find that the glans was covered by a prepuce which was perforated by only a very small opening. It was only necessary to be present during the act of micturition to see how the prepuce swelled up in the shape of a ball and allowed the urine to dribble slowly through this orifice.

These points were characteristic, save that in children prepuces with such narrow perforations do not usually allow micturition to remain normal for six years. Upon questioning, however, no other symptoms of stone were revealed. There never had been any hematuria and the pain was not influenced by jars, so that the journey by train to Paris had been well borne.

The boy was circumcized and all the symptoms disappeared completely.

PULMONARY SYPHILIS

Syphilitic lesions of the lungs are at present comparatively rarely recognized during life, and the pathological changes in these organs which may properly be attributed to syphilis are still only incompletely understood. Recent researches, and the discovery of the spirochæta, have opened the way to a more precise study of the part played by syphilis in various disease conditions. In the adult, syphilis may produce acute affections of the lungs, such as bronchopneumonia; the chronic pulmonary lesions comprise chronic interstitial pneumonia, fibrosis, and gummata of the lung. A marked feature of the syphilitic diseases of the lung is the tendency to the production of bronchiectasis. It is well recognized that pulmonary tuberculosis not infrequently occurs in persons who are or have been the subjects of syphilis, and it is possible for tuberculosis and syphilitic disease of the lung to be present together.



GLEANINGS *from* FOREIGN FIELDS

TRANSLATED BY E. M. EPSTEIN, M.D.



SLEEP AND HYPNOTIC MEDICATION

What sleep is, the conditions controlling it, and some suggestions concerning its disorders and how to treat them.
Gleaned from the writings of the French dosimetrists

THE neurons, which are the elements of the nervous system, need rest just as any other living cell, so says Dr. Tissot. The inferior order of neurons get their rest by the arrest of motion in the regions which they control, and by work being done in zones. Meynart estimates the number of functioning neuron-cells in the cerebro-spinal axis of an adult at six hundred millions. Evidently not all of these are functioning at once. Certain groups of them work while others repose, so as to be able to take the place of their fellows when they become exhausted.

The cerebral cells of the centers of association are not exempt from this rule. Yet rest for them can be obtained only by the arrest of their functions which Van Gehneten describes as follows: "These centers collect all the sensations which leave there their imprint, and that is memory. It is there where the sensations of touch, vision, smell and hearing meet, reunite and fuse together in superior centers. It is there that the sensations are compared among themselves and are compared for further sensations. It is here where the spirit (mind) finds all the indispensable elements for all the intellectual and psychic acts of life. These centers are definitely in the adult brain the anatomic substratum of what is called human experience, namely, knowledge, language, sentiment, esthetics, and morals."

When, therefore, these neurons cease to work, either naturally or under the influence of a narcotic, consciousness and that which it contains disappear—and this is sleep. They become manifest again when the co-ordinate activity of the superior centers resumes its course.

Sleep is therefore due to the repose, to the putting of the coordinating neurons out of circulation. This sleep is more often, if not always, partial (dreams).

Hence sleep is a periodic suspension of relational functions during which the entire organism regains the reserves which were used up by its activity and clears itself of the waste which results from that activity. Sleep, moreover, is an inward, general, and indefinable sensation, like hunger and thirst, which indicates a certain need of the organism.

Physiologically considered the state of sleep is analogous to that into which an animal is put when its brain is removed, and all the reflexes are preserved while its voluntary actions and consciousness are abolished.

The character of physiologic sleep is that of being calm, free from dreams and nightmares, and is not followed either by headache or hebetude.

The necessary conditions for producing sleep are that the brain be not troubled with excitement coming from the exterior organs

of sense, nor by interior disagreeable sensations, nor by various psychological states such as preoccupations of the mind, ennui, fear, etc. Hence there must be silence, darkness, and a certain amount of comfort.

In the course of life sleep undergoes modifications as to duration, intensity and distribution (repartition). Duration and intensity generally diminish with advanced age. The distribution of sleep is of less importance.

To what are these modifications in old age due? We think these are due more to the diminished need of sleep at that period than to anything else. The principal modification of sleep in the aged refers to its intensity, upon which depends its duration. When that intensity diminishes, sleep is more easily interrupted by insignificant causes, and the less need the organism has of sleep in old age the more difficult it becomes for old people to fall asleep again when once woke up, or this becomes entirely impossible. We must therefore distinguish between these cases, for they are fundamentally different in nature, although the definite result, the diminution of sleep, is the same.

We can in fact distinguish in sleep first the *need* which the individual experiences of sleep and in the second place the condition or state of sleep itself which satisfies this need.

In the normal state the intensity and duration of sleep must be in proportion (*en rapport*) with this need; this proportion remains nearly constant in the same individual during a certain time, and varies in different individuals, for the need of sleep is not the same in every subject. Suppose now that the need is diminished, then the amount of sleep also will diminish, but only in a certain proportion, and a normal state will obtain. When, however, this need should continue the same and could not be satisfied for some reason, then the equilibrium is interrupted and an abnormal state of things results. We see in fact that in the first case the individual may sleep but little, yet not be incommoded, while in the second case the individual sleeps more than in the first case, though not as much as he was in the habit of doing, and he feels the privation.

For this reason we think that the term "insomnia" as usually understood is not applicable to the first category mentioned above. It would be better to term it *asomniá* as a case where the individual sleeps little, for the reason that he has less need of sleep. (that which Lasieue calls the "appetite" for sleep), and is not incommoded by a continuance of this state of things. The term "insomnia" should be reserved for cases where the need of sleep persists but the sleep is hindered or is troubled for some cause or other, but only for a certain length of time, for a prolonged insomnia is deleterious to the organism.

One of the best remedies that can be used with which to combat insomnia is hyoscyamine. The properties which characterize most particularly its physiological action and specialize it for therapeutic use are its hypnotic effects, which are due to its action on the circulation of the nervous centers, the intensity of which it moderates.

Hubelant considers hyoscyamine as the better and most gentle of the narcotics, and he prefers it even to morphine and opium. Whenever insomnia presents itself as a symptom or in case of pain, when a narcotic is indicated we ought to turn to hyoscyamine and it will always give us good results. The greatest success with hyoscyamine will always be had when given as a hypnotic and against the symptom of pain.

Hyoscyamine is a specific hypnotic which procures a calm and deep sleep lasting for some hours, and even when it does not induce sleep it suppresses mental excitement. Its properties approach in many respects those of hyoscine, which latter seems to us more adapted for cases of mental derangement because of its quasi specialization for nerve-centers while hyoscyamine is better adapted to ordinary medical cases. It exercises its influence principally over the great sympathetic system and it is just here where it differs from hyoscine. Like this one, hyoscyamine acts also very appreciably upon the circulation of the nerve-centers whose intensity it moderates, and it is this which makes it a very efficacious medicament in congestive affections of the spinal cord and

in convulsive neuroses. But this special action of hyoscyamine is less than that of hyoscine.

All diseases which depend upon a state of congestion of the nervous centers will be benefited by hyoscyamine (if one hesitates to use hyoscine at the very start) and we cannot urge too much upon practitioners not to forget this pathologic indication. The greater portion of these affections in fact progress indefinitely. Many of them resist almost entirely all treatment. It will therefore not be useless to have on hand a number of medicaments which have a certain degree of action against these states. It is even probable that longer and more patient and persevering experimentation will prove hyoscyamine to be more than a mere palliative, and perhaps even a complete curative in some one of these diseases.

There is one class of cases in which hyoscyamine renders great services the same as hyoscine because of its equal influence upon the nerve-centers. These affections are: locomotor ataxia, paralysis agitans, senile trembling, chorea, delirium tremens, epilepsy, certain nervous coughs, whooping-cough, and tetanus.

The dose of hyoscyamine ought to be at first 1, 2, or 3 milligrams (0.001 to 0.003) and can be gradually increased, always watching the patient's tolerance and being careful to stop the higher doses or even gradually reducing the smaller ones as soon as one sees symptoms of delirium. In doses of 2 to 4 milligrams hyoscyamine will always give the practitioner the best results in allaying pain and as a hypnotic.—A. Houde, in *Revue Therapeutique des Alcaloides*. Aug.—Sept., 1907.

IS THIS A CURE FOR SLEEPING-SICKNESS?

Our readers will remember that some months ago it was found that decided improvement followed the administration of an arsenical preparation, atoxyl, in the treatment of sleeping-sickness (trypanosomiasis), the terrible disease which is depopulating vast areas in central Africa. Inasmuch as

this disease destroys horses, cattle and other forms of mammalian life, as well as man, and is almost inevitably fatal, its cure and eradication is a matter of the utmost economic importance, as well as of humanitarian and scientific interest.

Atoxyl is the sodium salt of para-amidophenyl arsenic acid and contains 37.6 percent of arsenic. It is less toxic to man than other arsenic preparations but more so to the parasites. Unfortunately the decided improvement that follows its use is succeeded eventually by recurrences in practically all cases; the trypanosomes eventually becoming "atoxyl-proof" or immune to its action. However, it is undoubtedly the best remedy available at present.

What promises to be a wonderful discovery, supplementary to the atoxyl treatment, has recently been made and is reported by Sir Robert Boyce in *The British Medical Journal* of September 14, 1907. It is assumed that there are two phases in the life-history of the parasite, and in one of these, phase "A," the atoxyl is the indicated remedy. The investigators, Moore, Nierenstein and Todd, working in Boyce's laboratory in the University of Liverpool, sought to find a remedy which would be effective in the second or "B" phase. After driving the trypanosomes from the blood they administered to the test-animals, rats, the salts of various heavy metals and finally found success with bichloride of mercury. While the entire series of animals treated with atoxyl alone succumbed, nearly 70 percent of those receiving the double treatment survived and had no recurrence, while of the remaining 30 percent only 8 percent had recurrences. Similar experiments on larger animals give like results, and the combined treatment is now being tried in man with results which are said to be very encouraging.

If these experiments lead to the discovery of a curative treatment of sleeping-sickness it will be one of the greatest triumphs of medical science, second to none in its far-reaching results; really the first *great* therapeutic achievement of the twentieth century.

In the same number of *The British Medical Journal* editorial reference is made to the re-

port of Mr. James Brand, a veterinarian, who was sent to northern Nigeria by the British Colonial Office. He reports the cure of trypanosomiasis in horses by the intravenous injection of a mixture of atoxyl and methylene-blue.

Atoxyl (Arend's, "Neue Arzneimittel und Spezialitäten.") is a crystalline powder, tasteless and odorless, easily soluble in water, and it parts with its strongly combined arsenic only by severe chemical manipulation (fusing with potassium hydrate). It has proven so little toxic in physiological experiments that forty or fifty times more could be incorporated into an organism than when using the usual inorganic arsenical preparations such as Fowler's solution and the like. It is given in doses of 0.05 to 0.2 per day, subcutaneously. Blindness was noticed to ensue after long-continued use.

ANTINEOPLASTIC VACCINATION

M. Doyen of Paris declares that he actually has 54 favorable cases treated in the way he advocates. It will be remembered that that treatment was severely criticised in a report to the *Société de Chirurgie* in July, 1905. At this time out of the 19 cases who lived when that report was made, which is now fifteen months ago, only three have succumbed, and these were of exceptional gravity. Sixteen of these cases, therefore, have survived and their conditions are very satisfactory. The results of his antineoplastic vaccination are therefore confirmed today by an already large number of observations, some of which are three, four, five and even six years old. Among the more recent observations M. Doyen describes a number of new cases in which the tumors disappeared almost completely without operation and one amelioration of an extraordinary case in a woman who was attacked with cancerous paralysis of the leg for the last three months and recovered both sensibility and motion.

It will be remembered that the discovery of the micrococcus neoformans had been confirmed by M. Metchnikoff and other

scientists. Specimens from inoculated animals were submitted to M. Cornil for examination and he considers the lesions as identical with certain tumors of man and animals. M. Ehrlich in his experiments on mice has confirmed M. Doyen's former conclusions, namely, (1) the etiologic unity of sarcoma and epithelioma, (2) the unity of immunization against the divers varieties of tumors.

Other learned men have studied the action of the vaccines prepared with the microbe of Doyen, and all of them obtained favorable results, especially M. Wright. It is understood that not all cases of cancer will ever be cured, but M. Doyen believes to have demonstrated that it is possible to arrest the evolution of cancer in a certain number of cases when taken under treatment sufficiently early. Operations on cancer are dangerous if they are preceded by a series of immunizing injections; operations combined with vaccinations of antineoplastic serum, on the contrary, give excellent results, and that vaccination alone may cure cases where surgery is altogether powerless. It is well to add that the x-rays give only disastrous results in subcutaneous cancers.—*La Médecine Orientale*, 1907.

CARBOLIC-ACID POISONING

Against this is recommended by Carleton the use of vinegar. In burning the skin or mucous membrane with carbolic acid the characteristic white spot resulting from it instantly disappears on the application of the vinegar. Equally good effects from drinking vinegar after carbolic acid is swallowed and then washing out the stomach.—*Journal de Pharmacie d'Anvers*, 1907.

PERUOL AND PERUSCABIN

Peruol is a 25-percent solution of peruscabin in castor oil. It is applied by friction against scabies. Peruscabin is a benzoic acid benzylester. It is the active ingredient of Peru balsam. It is a colorless fluid, used as above.



CATARRHAL PNEUMONIA AND GROUP

Two "swallows do not make a summer", nor do two cases prove anything—but, they may set one to thinking, and looking for other sparrows and trying things in other cases

APRIL 27, 1906, I was called in consultation with Dr. L. to see a boy, aged two years. The boy had been sick ten days. He had catarrhal pneumonia and it looked as if a funeral would be the next thing on the program. I had used calx iodata (calcidin) in one or two cases prior to this and told Dr. L. that I had nothing to offer except this and a few doses of specific tincture of apocynum for the inactive kidneys. The doctor also had some experience with calcidin in croup and readily agreed to try my suggestion.

Well, to make a long story short, this boy got well so quickly that his father gave me credit for curing him and also has given me his patronage since then. I do not know that my suggestion had anything to do with the recovery of this boy but I do know that I shall prescribe calcidin in similar troubles hereafter. It seems to relieve the difficult breathing, I do not know how, but I presume that the iodine set free, promotes the absorption of the accumulated mucus in the bronchi. At any rate it relieves difficult breathing, and that is what we want.

During the last winter I was treating a young lady for goiter. Both sides of her neck were enlarged to an extent to be disfiguring and her parents were anxious for her relief. She had had thyroid extract (I wonder why) and has given up hope of a cure. I put her on a saturated solution

of potassium iodide, five-drop doses three times a day, to be gradually increased to ten drops. She seriously objected to the taste of this "dope" and to make her medicine more palatable and to be certain that she took iodine I prescribed the two-grain tablets of calcidin, one tablet three times a day, and within a few weeks her neck was of normal size and her father, a noted divine, thinks I am *the* doctor. I used specific tincture phytolacca and spirit of camphor locally in the above case, but I do not suppose these had much to do with the cure.

Now then, two sparrows do not make a summer nor do two isolated cases prove anything, but it is the natural and proper thing to praise the bridge that carries you safely over and to continue prescribing remedies that are followed by relief of your patients.

One more suggestion and I close:

For spasmodic cough I use the following combination: $\mathcal{R}$ Chloral hydrate, spec. tinct. gelsemium, 2 drams of each; syrup wild cherry, enough to make 3 ounces. Of this I give a teaspoonful every three hours.

The way I caught on to this formula is as follows: I am troubled with a spasmodic cough myself and my colleagues prescribed some form of opium which would stop the cough for a few hours but gave me no permanent relief. So, know-

ing that gelsemium is a relaxant and that chloral is an antispasmodic I combined the two and have what I term a "boss" remedy for spasm of any kind. The beauty of the above prescription is that it is followed by none of the evil results incident to opium drugging. No constipation, no drying up of secretions (or excretion) no loss of appetite, no tendency to drug habit, etc. Try it, reader, and be convinced.

Now, then Brother Abbott, can you put the two last ingredients in this prescription into alkaloidal form? If you can, thereby making it (as you claim) definite in the amount of drug used, permanent in keeping quality and, last but not least, palatable, then you and I will have conferred a favor on those who suffer with spasmodic cough and we can say, "Go away trouble!"

W. P. HOWLE.

Charleston, Mo.

[The two experiences with the iodized calcium hardly need comment; they are not exceptional but common, as thousands of readers of CLINICAL MEDICINE can testify. But we are always glad to get these testimonies of appreciation of the "bridge that carries you over." Give us more—everybody.

Concerning the doctor's formula for spasmodic cough. It is undoubtedly a good one, and its advantages are apparent. There is no reason why the essentials of the formula should not be presented in tablet form—except that chloral does not lend itself very readily to this method of administration. Such a tablet could be made to contain chloral hydrate, gelseminine and zinc cyanide in appropriate dosage; better still these ingredients could be given separately.

But in our opinion even better effects can be secured in these cases by using monobromated camphor instead of the chloral, with gelseminine and zinc cyanide if these are needed. Codeine in minute dose (gr. 1-67) is free from the disadvantages of morphine, is effective, and sometimes really needed. But in every case of cough

try to find the cause. Always examine the upper air passages. Sometimes the amputation of an elongated uvula may be all that is needed.—ED.]

PLANS FOR THE FUTURE: SOME SUCCESSES

Anent your "plans for the future" as discussed in your July issue, page 838, I would voice the opinion that you are pleasing us very well. In fact, you appear to have an intuition as to what we need to be enlightened upon. It almost would make a person suspect that you had had some medical experience yourself. If you can get the postgraduate course in applied pharmacology in workable shape, it will be a good thing. I understood from talking to Dr. Waugh when I was in Chicago in 1903 that there was some thought of a postgraduate alkaloidal school. I think a good idea would be a postgraduate course in office practice, giving instruction (clinical) in what might be called office surgery—rectal, gynecologic, nasal, aural, ophthalmic.

I have been much interested in THE CLINIC ever since its early years, but more particularly of late. That series of articles by Birchmore is especially suggestive and helpful, but in fact all the articles are good.

About a year ago you published an extract from some German source, giving the treatment of a complete esophageal stricture with thiosinamin. I made a note of it, and last fall a man came to see me and from a careful study of his case, history and symptoms, I concluded that it was a case of stricture of the esophagus near the cardia, and I employed the treatment as it was given. The constant anxiety and difficulty of swallowing has left him, whereas previously it was slowly but steadily getting worse.

A word about the dark iodide, or calcidin. This is a bad country for croup and I have heard of several deaths from it in the country covered by my practice (before I came here). I have been here three years and have seen many cases, among these being four or five cases in which it has been necessary to give gr. 1-3 to gr. 1-2 every ten to fifteen minutes

for twelve to eighteen hours, or longer, to get relief, then less often for a day or two longer. Three cases developed bronchitis from inspiration of the exudate, but all have recovered: Ages six months, two years, and five years, respectively. Accessory treatment: cholagoges, oil, steam inhalation, aconitine, strychnine, as needed for fever and to relieve congestion. Ipecac and euphorbia (Lloyd's) to assist expectoration and relieve respiratory irritation.

It was my observation while giving calcidin that the child would breathe easier after a few doses and then, perhaps from exhaustion from his previous dyspnea, would fall asleep. If he was awakened every ten or fifteen minutes for the medicine he would do very well, but if he was let go twenty minutes to a half hour the dyspnea would again become severe.

In conclusion I wish to say that Doctor Abbott deserves the thanks of all sufferers for the production of the H-M-C tablet.

J. E. BROOKING.

Star, Tex.

KEEPING THE CHRONICS

It would help me and I believe many others if the successful ones would answer this query, "How can we keep the chronics coming?" Some of my colleagues tell me that I hold chronics a little better than the average, but many of them stop with me just at the critical stage in spite of every effort on my part. Often they would get along faster if they could be induced to report to me oftener.

Would it be unprofessional to have them sign an agreement at the start (when they are all enthusiasm) to take so many weeks' treatment at a stated price, which fee must be paid regardless of the number of times they failed to report? This might to some extent relieve that double deterrent, the unpleasantness of going to a doctor and paying for it, too.

S. H. R.

—, New York.

[The best way to deal with "the chronics" is to cure them—if this is possible. Then

when they stop coming there will be plenty of others to take their places, for the public loves the man who succeeds, and the office of such a man will never be empty for a long time. There is a class of cases in which improvement is necessarily slow and in which to secure good results it is desirable that the physician should see his patients often and study them long and persistently. These patients readily get discouraged, lose their faith in the doctor and are continually flitting from one to another. Start right with these patients. Let them see that you propose to go right to the bottom of the trouble, making your investigation of the physical signs of the disease exhaustive, detailed: Go over every organ, every function; study blood, feces, urine, sputum. This not only will give you valuable knowledge which may be the key to treatment, but it makes a profound mental impression upon the patient and his friends. Insist upon the importance of keeping them under the closest observation for a long time, so that every factor may be studied. If the condition is one in which you can promise relief and the probability of cure, tell them so—positively, firmly and with some show of enthusiasm. Let your patients see that you have "red blood" in you, and win their affection by a genuine show of human sympathy. Then "make good." With the knowledge at your disposal you should now be able to do this. Think over these facts, separately and collectively, and make them a basis for your therapeutic indications.

Remember that in practically every condition great and sometimes simply wonderful improvement will follow a thorough cleaning out of the bowel. In very, very many cases it isn't half done. This is particularly true in the "chronics" where all the functions are sluggish and where the bowels may move daily, while all the time a stinking, poisonous cess-pool of retained feces reposes peacefully in some neglected intestinal by-way. If there is the slightest suspicion of such a condition go at the matter from both ends, till there is no longer a question. Then "keep clean."

As general principles, almost universal in application, remember our much-repeated "success points," i. e.:

- To equalize the circulation.
- To eliminate waste.
- To stop autotoxemia.
- To maintain systemic asepsis.
- To stimulate innervation.
- To feed the tissues.

Keep these general things in mind, and then seize upon the special indications; this done, we think you will not have much trouble in keeping the chronics coming. Now—the subject is opened for discussion! What say the "family." —Ed.]

THAT ALL-ED DEATH FROM H-M-C: WITH SOME INTERESTING COR- RESPONDENCE

We have repeatedly called attention in CLINICAL MEDICINE to the potency, and therefore the possible danger, of the H-M-C combination, when it is not used with care and with minute attention to detail in technic. We have predicted that there would be deaths following its use. That was inevitable, considering the fact that we were employing powerfully toxic drugs. The wonder has been that until very recently not a single fatality had been reported, although more than two millions of the tablets had been sold and these had been used by all kinds of men, under all sorts of conditions, on all kinds of cases. While some men have used them with great care, others, to our knowledge, have been almost criminally careless and negligent of the most elementary precautions so plainly necessary to safety. Under these circumstances we think it wonderful that this good record has been made.

Below we reprint from *The Journal of the American Medical Association* the first report of an alleged death following H-M-C anesthesia. It is the first and only death following its use that has been brought to our attention. Others have been reported, but in every instance upon tracing them up carefully we have found either that some imitation of the H-M-C was used or that

the statement was erroneous in some vital point—the patient unquestionably dying from some cause other than the anesthesia.

We believe that the death of Dr. Van Meter's patient can not properly be ascribed to the H-M-C—in other words, that this patient was a "bad risk" and that the preparation was carelessly given by a man (or rather *for* him, by a nurse) who was ignorant of and unfriendly to this mode of anesthesis. We shall explain later.

The report is as follows:

DEATH FROM RESPIRATORY PARALYSIS FOLLOWING HYOSCINE-MORPHINE-CAC- TIN ANESTHESIA

By B. F. VAN METER, M. D.
Lexington, Ky.

Patient.—J. H. E., male, white, age 51, was seen by me in consultation with Dr. G. M. Centers, Hazelgreen, and Dr. J. A. Stucky, Lexington.

Family History.—Mother and father living and in good health. Two sisters and one brother living and in good health. One sister dead; cause of death unknown. No history of malignant growth in family.

Personal History.—Patient was a bookkeeper and clerk. Married. Up to one year previously had always enjoyed good health. Drank whisky to excess. Present illness began one year before I saw him with an attack of tonsillitis. After the attack he noticed an enlargement at the angle of the left jaw. This increased slowly in size until two months previously, when it grew rapidly and caused a great deal of pain, for which morphine was given; at the time I saw him he was taking one grain of morphine daily.

Examination.—This showed a tumor, apparently of the parotid of the left side, somewhat smaller than a lemon and apparently slightly movable.

Diagnosis.—A provisional diagnosis of sarcoma of the parotid was made and an exploratory operation advised as it was believed that the condition was operable.

Operation.—The family physician, Dr. G. M. Centers, asked permission to use the hyoscine-morphine-cactin anesthetic, as manufactured by Abbott, saying that he had used it and thought it safer than ether and more convenient with the case in hand. I told Dr. Centers that I was ignorant of the use of that particular combination, but that if he would give it I would consent. Patient had been purged thoroughly the day before. One ounce of castor oil was ordered. Dr. Centers gave one tablet of the H-M-C at 5 a. m., followed by one at 6:30 a. m., and a third tablet at 8 a. m. The patient was ordered to the operating room at 8:30 a. m. The castor oil given the night before had not acted. An enema was given, which was partially retained. At

the beginning of the operation patient was somewhat cyanosed, breathing deeply, 12 to 14 times a minute. Pulse-rate, 64, full and strong. As the incision was made through the skin the patient roused up and was given a few drops of chloroform. This was repeated two or three times during the operation. A straight incision was made and the glands exposed. It immediately developed that it was not sarcoma but tuberculosis of the lymph-gland within the parotid. A line of cleavage was readily found—the tubercular gland removed *en masse*, with comparative ease. The facial nerve and external carotid artery were not injured. No attempt was made to remove the parotid. There was practically no hemorrhage. The wound was closed by interrupted stitches, without drainage.

Postoperative History.—Patient left the operating room apparently in about the same condition as when he went on the table, still slightly cyanosed. Nurse was directed to give him water if he asked for it, and I said that I would see him a few hours later. The nurse's report states that there was no change in his condition until 12:15 p. m., exactly two hours after he was returned to bed, when he very suddenly ceased breathing and became markedly cyanosed. Immediately before this the patient's respiration as counted by the interne and nurse was ten. Artificial respiration was resorted to and continued for fifteen minutes, without any result. He was given a hypodermic of 1-20 of a grain of strychnine. The patient did not rally, however, dying apparently from paralysis of the respiratory centers.

Autopsy.—Postmortem examination was held the following night. Kidneys and heart normal. Right lung showed a good many healed tubercular nodules. Left lung also showed a few healed tubercular deposits. Bronchial lymph nodes showed the effect of an old tubercular infection. The dura was somewhat thickened and slightly adherent. Brain normal. Arteries soft and in good condition. No evidence of cause of death. Conclusion: Death probably due to paralysis of the respiratory centers.

Following this we give the letter of Dr. G. M. Center of Hazel Green, Kentucky, who referred this patient to Dr. Van Meter for operation. This letter should be read very carefully, as it presents some interesting phases of the matter, which throw a different light upon it:

DEAR DOCTOR ABBOTT:

Your letter of inquiry as to the death of J. H. E. at Lexington, Kentucky, is at hand. I was there and witnessed the whole thing, and all that Dr. Van Meter has said in his statement is true but one: that is, *I did not give the medicine*. I did ask Dr. Van Meter over the 'phone, the evening before the operation, to use the H-M-C, and later the same evening we met at the Good Samaritan Hospital and ordered the nurse to give the H-M-C as stated by Dr. Van Meter. When I got to the hospital the next morning the third dose had just been given, and the patient was sound asleep

and ready for the table when the third dose was given.

Mr. J. H. E. was pale and the postmortem revealed that he did not have much blood nor muscle, but when Dr. Van Meter and I left the hospital I didn't see any reason for alarm. But there is one thing I have thought of since then. That tumor was attached to the top of the windpipe, and when the tumor was pressed he would cough up the tubercular matter in varying quantities, and I believe the tumor was discharging into the windpipe. Now, considerable serum and blood may have run in from the wound, into the larynx, and helped to cause the death.

I don't believe the H-M-C was the cause of death any more than chloroform or ether would have caused death; and really, he had lived about as long as he could without an operation. The doctor asked me what I had against him that made me bring such patients to him; and I told him that patients that could be cured I cured at home, and patients that could not be cured I brought to Lexington to die. And in the consultation Mr. J. H. E. asked Dr. Van Meter if he considered the operation serious, and he told him that it was, but it was his only chance for life and that he might die on the table, but if he survived the operation he might recover. And I must confess that I acted on my best judgment, and if there is any blame to be on any one, let it fall on me, not on Dr. Van Meter, for he told me that he knew nothing about the H-M-C at all. I am still using the H-M-C with excellent results and shall continue to use it until it disappoints me. Then, and not until then, I shall lay it aside.

Yours very truly,
G. M. CENTER.

Hazel Green, Kentucky.

Right here we would remark that Dr. Center assures us that he sent a full explanation to *The J. A. M. A.*, which, of course, was not published; neither was our later letter of remonstrance to this and several later attempts to discredit this and other preparations by the same manufacturer.

In connection with this report we reproduce below a portion of a letter received from a well-known Pennsylvania physician, who requests that his name be not used. He says:

In reference to the Lexington, Kentucky, case of death from H-M-C anesthesia: The surgeon made a diagnosis of sarcoma of the parotid gland but found a tuberculous lymph-gland. "The facial nerve and external carotid artery were not injured." "There was practically no hemorrhage." The attending surgeon believes that "the tumor was discharging into the windpipe." [See Dr. Center's letter, just before this.—Ed.] Frankly, I do not believe that the cause of death should be attributed to the H-M-C. I have had only limited experience with the H-M-C, mostly in obstetrical cases, and am free to say that the results have been very satisfactory thus far and

the report of this case will not deter me from continuing to use the anesthetic. The last case of accouchement was a difficult labor in which the forceps were used. The result was very pleasing to the patient and very satisfactory to me.

In addition to this we will add that it is apparent that, to begin with, the patient was given one dose too many—the nurse not knowing that “enough is enough,” whether one dose or three; the last, or third, always to be given, if at all, in the presence of the surgeon. Evidently the third dose was not needed and should not have been given. In the second place, in the first use of a powerful combination it should not have been left to a nurse who, however skilful, is not a safe judge as to its action or able to detect its dangers. Third, the case was a desperate one from the start, in which the outcome under any anesthetic was doubtful. Fourth, the diagnosis was doubtful, the one fact being plain that here we had a tumor obstructing the upper respiratory tract, thereby increasing any respiratory danger. Fifth, the probabilities are that the pathological condition was such that any kind of anesthetic would have given the same ending. Finally it may be added that artificial respiration and other efforts to restore life were abandoned altogether too precipitately.

Another physician (and we could name hundreds, as well as recount thousands of cases with delightful results) says:

DEAR DOCTOR ABBOTT:

I have been observing closely the reports on H-M-C compound for anesthesia with a view, if it proved satisfactory, of adopting it in my work. When this matter first came out under the name of scopolamine-morphine anesthesia, I made a tentative trial of it in my hospital work, which trial proved rather unsatisfactory. Then I followed up the writings in *THE AMERICAN JOURNAL OF CLINICAL MEDICINE*, of yourself and others, with a good deal of interest. Now I see a report of considerably over one thousand cases (“Is Hyoscine-Morphine-Cactin Compound a Safe Combination for the Production of Surgical Anesthesia and Painless Labor”—Lanphear) without a death or any alarming symptoms.

I had just gotten ready to begin the use of it and had sent for samples for that purpose, when I observed in *The Journal of the American Medical Association*, Aug. 3, 1907, page 416, an article headed as follows: “Death from Respiratory Paralysis, Following Hyoscine, Morphine-Cactin Anesthesia,” by B. F. Van Meter, of Lexington, Ky. I read this report very carefully, and while

it is quite true that the limit in dose was given to this patient and the patient himself had drunk whisky to excess, yet my operative experience is such that I believe he would have been a good risk for ordinary ether anesthesia and that perhaps not to exceed one in several thousand of his class would die from the same. This case is reported rather fully and if you have not read the report I wish that you would do so and subject the same to a critical analysis for me, and if it is more convenient to publish the result in *CLINICAL MEDICINE* than to write me personally, you may do so.

My work is strictly surgical, and of course I desire to make use of every means which will render this work more pleasant and safe to the patient, and for that reason I have been following up this matter very closely, feeling that the burden of proof must be laid upon those who are introducing the remedy and feeling that I am not justified, in the present comparatively safe status of ether anesthesia, in subjecting my patients to any method which is not fully demonstrated to be at least equally as safe. The contraindications must be worked out by those who are advocating the method. If this one death is a result of the method, it already brings the death-rate far above that of ether or chloroform and infinitely beyond the former.

A. L. BLESB.

Guthrie, Oklahoma.

Believing that our reply to this letter, and the subsequent correspondence, is of interest in this connection, we reproduce it, as follows:

DEAR DOCTOR BLESB:

I have at hand yours of the 31st, which I hasten to acknowledge, with the assurance that I shall answer your letter fully and in detail the minute time is given me to do so. Just bear this in mind, however:

Van Meter used this preparation on one case only—never before, never since. He used it when all the time he had it in his heart to damn it. He gave the maximum amount for a robust patient for a huge operation, through a nurse of the same experience (i. e., none at all). He allowed the third dose to be given by the nurse without the observation of the surgeon, which should never be done under any circumstances, excepting the nurse be thoroughly experienced.

Not only this, but after the operation, in the face of the excess dose, and when everything had gone all right, he left this patient without attention in the hands of a nurse who knew nothing about this mode of anesthesia, and was unfitted to cope with unexpected complications.

And even if so, why should this one experience disquiet you in the face of the thousands of others that are reported. You know us. You know we are on the square. You know that *CLINICAL MEDICINE* does not report what isn't true, and when I say to you that over two million tablets have gone into the hands of the profession already, I am telling you the absolute facts. Not only this, but if there has been a single death attributable to the use of these tablets, this is the only one

that has come to my attention, and I don't accept this for one moment as being within a thousand miles of it.

Attempts have been made to answer this in the *Journal of the Association*, but the *Association Journal*, although the organ of the American Medical Association, of which I am a member, is open to but one side of any question to which its editor is committed, and he has been fighting me on many lines, and on this line in particular, for a long while, as you will see by several articles in recent issues.

Now, supposing this Van Meter case were authentic. Don't the statistics show that about one in five to eight thousand chloroform anesthetics of all kinds results fatally? In the original article in which H. C. Wood, Jr., started out to "do" me, and got bumped, he claimed for scopolamine-morphine one death in 221. They are now trying to show that scopolamine-morphine even is safer than hyoscine-morphine, and that cactin cannot be any good. Let us assume that from the two million tablets instead of a million anesthetics there have been 600,000, and that this death reported by Van Meter is authentic, and let us give them 300 as a ratio instead of 221, as Wood claims, where are the 1999 that, from their own figures, should have been recorded by this time?

W. C. Abbott

Chicago.

Replying to this letter Dr. Blesh wrote us as follows:

DEAR DOCTOR ABBOTT:

Your letter in reply to mine of recent date referring to the Lexington, Ky., case is at hand and I assure you that it was not in a spirit of criticism that I asked you to analyze this case for me. I have used your products for many years and have always found them to be absolutely true and that the physiologic effect of the drug could be secured when given in fractional doses with perfect safety. Of course, since I have abandoned general practice I have not had occasion to use the alkaloids as much as before.

I have watched with a growing interest the reports on the H-M-C compound, thinking perhaps that here was something for which I had been looking for many years. But you can realize that a report such as this of Van Meter, apparently so candid and fair, would be disquieting to one who cannot afford, in his private work, to take even a long shot at death.

Personally, I esteem you and the magnificent work you are doing very highly and I can also add that I know of no misstatement that you have ever made to me in your life, and I have therefore great confidence in you and have personally taken pleasure in defending you when you were attacked in my presence. I have made no public statement as to the H-M-C, either for or against it, but when in doubt I have written you direct. I have sent for a sample and shall begin using, it of course with a great deal of caution at first, believing that in a thing of this kind the only way real knowledge is obtained is by and through personal experience, being guided, of course, by the work of others who are reliable.

As to any personal fight having been made upon you or your products by the *The Journal of the American Medical Association* I have no personal knowledge except that I noticed recently the report of the Council on the physiologic action of cactin which is, as you know, adverse so far as the claims made for it by its friends are concerned. This may be interpreted by one who knows the ins and outs of the Council's work better than I do to be meant for and aimed at you.

If it can be proven that the Council on Pharmacy is perverting the responsible position accorded it by the A. M. A. for any base ends, why, of course, every right-thinking man will lose confidence in it, and a mighty fabric which could be used for the uplift of the profession will fall asunder and the profession will be in worse condition for its having existed than if it had never existed at all. It will also be a bad day for the medical profession when this great organization shall fall under the domination of any clique who would use it for the advancement of their personal ends.

I believe that if such things begin to show at all, we should begin a campaign within the organization itself and reform it from within rather than to entertain for a moment the idea of its dissolution. It is the first time in the history of the medical profession when we have really had an organization worth speaking about, and for that reason, if no other existed, we should look carefully to the keeping of it so beyond suspicion that every doctor, no matter how humble, would feel that in it he had a friend and support. I shall look for your complete analysis with a great deal of interest, I assure you,

A. L. BLESCH.

Guthrie, Oklahoma

DEAR DOCTOR BLESCH:

When I started in to answer yours of the 31st I intended to write very briefly but found myself going until I pretty nearly covered the entire ground. Don't misjudge me, please. I do stand for organization as strongly as any man can. It is necessary. I am staying with it and am going to stay with it to the finish. While standing by my guns as best I can, you may be sure that nothing that I shall say or do will ever be what can consistently be judged to be against organization, in so far as it is good for the doctor, although there is many an evidence of unfairness to myself and others. I have not mentioned these things, fearing that I shall be misjudged or, rather, that I may lead some less firmly fixed in their beliefs to think that I would decry our great organization or to get a wrong impression regarding it.

With further reference to the Van Meter case, which I have pretty fully outlined to you, I enclose a copy of a letter received from the doctor who took the case to him [See Dr. Center's letter.—Ed.], which explains the situation exactly.

Van Meter cannot escape criticism, according to his own report, since he let an inexperienced nurse administer this anesthetic, in which he did not believe nor trust, and neither he nor any other physician was on hand during the administration, which was improperly done, the third tablet being totally unnecessary. Nor should he have

left the patient in that dangerous condition in the charge of the same inexperienced nurse after the operation.

It can scarcely be expected that when using a medicinal agent of such tremendous power as the H-M-C it could, under no circumstances, do harm—especially is this the case when we reflect that it is being put into the hands of all sorts and conditions of physicians, and you know as well as I what that means.

You must remember that the very favorable statistics as to the use of ether, for instance, came from the great Mayo clinic, with ideal conditions, and not, like those of the H-M-C, from the mass of the profession, operating under every conceivable condition in which the surgeon must be called upon to act.

In fact, our greatest difficulty is to account for the persistently reported harmlessness of this anesthetic, even though new to those who are using it and the technic of which has not been elaborated by half a century's experience like that of ether. What would have become of the latter if people had stopped using it at the first death?

Altogether, Doctor, even if you should consider that Van Meter's patient died from the effects of the anesthetic, I fail to see in this, as I have said, any reason for condemning this method.

In the meantime, the advantages accruing from its use are so many and so good that no surgeon is justified in neglecting it. The comparative safety, the absence of shock, the lessened tendency to hemorrhage, the freedom from nausea, vomiting and postoperative pains, as well as the tranquilizing effect on the patient's mind and the consequent disappearance of all objections on his part to such operative procedures as the surgeon may recommend, are only a part of these advantages.

Only this week there was related to me an incident by a friend. This surgeon ordered a nurse to give "two full doses" one and one-half hours apart, to a patient on whom he was to operate. Shortly after the second dose was given he was called for in a hurry with the terrifying announcement that the patient was dying. Arriving, he found respiration fallen to six, and inquiring of the nurse what she had given, she said: "Why, two doses of two tablets each, as you ordered, two 'full' doses." He explained that *one is a dose*, and on inquiry found that she had before been giving the half-strength tablets for another surgeon, and although the vial he left was plainly marked "*full strength*," printed in red, and the other "*half strength*" in black, she went on and used it according to her memory.

As soon as the doctor found out all about it he went on and operated, and, except that there was unnecessarily profound anesthesia, no unpleasant symptoms followed. That she did not kill the patient was no fault of hers. Surely, anything as strong as this and withal, when properly used, so safe, is a real boon to humanity. Any other patient of the character of the Van Meter case might have been killed. [Dr. Bradley, whose paper appears in another column, had a similar experience. See his "Case 18."—ED.]

A doctor has just reported to us a successful operation on an attempted suicide where the radial arteries were severed (or slashed at) and the throat cut, after which the patient jumped into a tub of

water, prepared to drown if he did not bleed to death. The wife tracked him by the blood to the bathroom, with help broke open the door and called for all the doctors in town. They attempted to anesthetize him in the usual way, without result. As a last resort, one among them having a tube of H-M-C at hand, they "shot" him with that. Result: prompt anesthesia, safe operation and the saving of a life.

This morning at the Ravenswood Hospital we operated on an old doctor, 85 years old, suffering from enormous double hydrocele and cystic testicles, using one tablet for the first dose and half a tablet fifty-five minutes later, with a few drops of chloroform, just enough to quiet him during the cutting and pulling; this was all that was required and he went through the operation and back to bed as if he were sweetly sleeping; no nausea, no vomiting, no anything disagreeable—and that is the history of most cases of H-M-C anesthesia. But to say that there are definite, iron-clad rules requiring the giving of so much, and no more and no less, is absolute asininity. Who ever dreamed of saying how much chloroform or ether should be used on a patient? It is "dose enough." One must start with the minimum amount, give what he deems proper in each case at right intervals, supplementing with chloroform or ether, as may be necessary. One may be used as well as the other, the only point I can see being that if the respiration is low, chloroform is preferable. Lanphear and others of my acquaintance who prefer chloroform use it almost exclusively.

I thank you for your letter. It does me good. I thank you for your approval. You speak from the heart and I know you mean it, therefore I am correspondingly pleased. May I not hear from you again?

W. C. ABBOTT.

Chicago, Ill.

DEAR DOCTOR ABBOTT:

Yours of the 13th inst. in reply to mine at hand. Since writing you my previous letter I have received the sample of H-M-C and we have used it on two cases, both abdominal.

The first was a case of suppurating ovarian cyst which we had evacuated of its purulent contents a few weeks before by simple incision under cocaine infiltration, the patient being in such a profound condition of sepsis, her temperature ranging from 100° to 104° F., and her pulse from 100 to 150, and very emaciated, and her condition so bad that we were afraid of a general anesthetic. The second operation was undertaken with a view to removing the cyst, the patient being somewhat improved over the previous operation but yet not a good risk for even ether anesthesia. At 6 a. m. she was given one full-strength tablet, which was repeated at 8 a. m., and she was taken to the operating room at 8:30 a. m. With the help of about twenty drops of ether the operation was completed very satisfactorily, and the patient did not wake up until midafternoon, and then only to relapse into sleep again. When evening came she could not believe the work had been done and was so pleased to think it was all over with that she stated that we must have taken snap judgment on her and

that she would not dread another operation. There was no postoperative vomiting, nor unpleasant sequelæ of any kind.

Today we operated on a case of tubercular tubal disease with much pus formation. Patient also in bad condition. Incision was made above the pubes and drainage completed through the cul-de-sac. The same amount of H-M-C was given and but a trifling amount of ether was required to do the work. I left the hospital a few minutes ago and the patient was sleeping like a baby, with a nurse by her side. And I want to assure you that my best nurse was placed in charge of these cases with full instructions beforehand, and before we used the anesthetic at all I gave her all the literature at my command to study up on this particular anesthesia. So far as I have gone I will say that I must express myself as well pleased, I may even say delighted. I shall follow the matter up, continuing to use it, however, with the strictest supervision, until I am satisfied by an actual and ample trial.

Do not think that I believed you to be against medical organization, for I had read your editorial about a year ago in which you expressed yourself very strongly in favor of it, and I had no reason to believe, knowing you as well as I do, that you had changed. I was trying to get at the real "inwardness" of the thing, and I think that your letter has shown me some things, particularly wherein you say that *The Journal of the A. M. A.* will not permit you to use its columns. This is the first and last refuge of those who have the wrong end of a question. I believe that this matter will be straightened out when the whole profession can be made to see things as they are. I can see very plainly that the Van Meter case is not a fair test of anything but one, and that is the unskill of the physician himself.

☐ You have my consent to use this correspondence in any manner that you may see proper, for I know you well enough to feel assured that you will not use it improperly

Guthrie, Okla.

A. L. BLESCH.

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With this we are content to rest our case, at least for the present. There are other phases of this question which eventually we shall take up, whether in CLINICAL MEDICINE or elsewhere circumstances must dictate. The assaults upon H-M-C have been made from various viewpoints but all of them will fall to the ground in the end because the profession is beginning to understand the advantages and superiority of this product.

More than 15,000 doctors have signified approval by purchase and use of this preparation.

In this connection let me say that over 1000 cases in which the H-M-C was successfully used were reported to me in one day

this week and all (so far as reported) without one unpleasant symptom whatever. Outside of the United States, England, Canada, India and Mexico are beginning to send in enthusiastic reports.

A PLEA FOR COMMON SENSE IN THE USE OF H-M-C

The patrons of clipping bureaus are well aware that in the lay periodicals of the day appear numerous reports of fatalities from the use of ether, chloroform and even of laughing gas. Only rarely are these mentioned in the medical journals. Why? Well it is not as a rule the custom for physicians and surgeons to rush into print the accounts of their failures, and it may be safely assumed that the statistics published now and then are only contributed by those who have reason to believe that the statistics given in their name are creditable to their own skill.

The deaths occurring to the rank and file of the profession from the use of these anesthetics are practically never heard of. Nevertheless they exist. One of our dental exchanges makes something of a specialty of this matter and scarcely a number, if any, comes to our table which does not have a small list of fatalities of this sort. Nevertheless, even when published, these things make very little if any impression on the medical mind. Why? Because the use of ether and chloroform is familiar to them. They know that occasionally fatalities occur under their use. They are used to this and think little of them. Fatalities occur from the use of opium—plenty of them. But the profession does not therefore drop the use of opium; on the contrary, the application of this powerful drug is not in the slightest degree interrupted by the occurrence of one or even of a series of deaths from its action. The profession pays no more attention to it than it would to the reported occurrence of a person being choked by the lodgment of a chunk of meat in his pharynx. The world does not stop the use of meat on account of any such an accident.

It is altogether different, however, when a fatality is reported or would be reported,

from the use of the H-M-C. The profession is not so familiar with it. It is still on trial. They look upon it with a little dread and a little superstition, perhaps, and are ready to take to their heels in a panic on the slightest suggestion of danger. Under these circumstances, it is nothing but the astonishing lack of fatalities which allows the new anesthetic to continue in its unparalleled ride of prosperity. Nevertheless, a warning is necessary, and we proceed herewith to give it.

We have repeatedly said that it is but reasonable to assume that a remedy of such tremendous potency cannot possibly be devoid of danger. It is being administered by everybody, all over the country, under every possible condition, and under some conditions which would seem to us impossible. The utmost recklessness is being used in its applications, and it is a certainty that somebody is going to get a setback if it continue. For instance, we have one letter from a physician who stated that his daughter having typhoid fever, during the seven weeks of his treatment he had administered hypodermically to her one hundred of these tablets! Now, why should any man administer any of these tablets in typhoid fever, much less one hundred of them?

Another man writes that he administered to a woman in confinement two tablets twice repeated within two hours, which would make a grain and one-half of morphine, and about 1-17 of a grain of hyoscine within this time. What possible excuse could there be for such administration as this? Who would think of giving a grain and one half of morphine alone within two hours, in such a condition?

We say emphatically, that there has been no word published by us, or by anyone connected with us, which would warrant such gross carelessness in the use of this powerful combination drug. On the contrary, we have repeatedly and at every opportunity warned the profession that they should use it with good judgment. Why should not common sense be used in the application of this as well as of any other drug in the market?

We believe that it is safe to assume that one of these tablets containing one-fourth of

a grain of morphine, should be looked upon as we would look upon a single dose of one-half grain of morphine. This is to keep on the safe side, and the same cautions should therefore be shown by the physician in one of these tablets, that he would show in administering one-half grain of morphine hypodermically. The conditions are comparatively few in which such a dose of morphine is justifiable, in the beginning, given to a patient under any condition whatsoever, without previously knowing the patient's susceptibility to the remedy and especially his physiologic condition. The man who would administer one-half grain of morphine hypodermically to a patient, not knowing that his kidneys were previous, is certainly taking greater risk than we would.

The fact that over two millions of these tablets have been administered hypodermically with but one death being reported (and that a very doubtful one) still does not excuse carelessness in the matter. In fact it encourages us to ask for redoubled vigilance, since it is not possible that such impunity can continue forever.

In the vast majority of cases no such doses are necessary. Long ago Anstie pointed out the fact that in many instances pain could be relieved by much smaller doses of morphine than were ordinarily used; one-eighth of a grain for instance. He showed that it was the stimulant effect of morphine and not the sedative effect, as obtained by small doses instead of large ones, to which the relief was attributable. This lesson seems to have been forgotten by many of our physicians. At any rate we would urge that not only in obstetrics but in medical cases proper, the half-strength tablets (or one half-tablet standard) be employed at first; the stronger doses only being given when the smaller ones have proved to be inefficient. If this is done we firmly believe that in nine cases out of ten the smaller doses will prove effective.

We have just at hand the report of a South Carolina doctor who administered the full-dose tablet when the labor was nearly completed. The result was cessation of pains, necessitating forceps delivery, with some trouble in resuscitating the baby and

respiratory difficulty on the part of the mother. Everybody came around all right, but there was an anxious ten minutes or so on the doctor's part?

In this case the doctor made a serious mistake—a blunder that a number of others are thoughtlessly making. The full-dose tablet, if used at all in obstetrical cases, should be given *early in the case only*—when the first severe pains come on; given in this way it would have softened things up and would have been eliminated and out of the way by the time the propulsive stage of labor came on. Given late, the tendency is to arrest labor, by causing too great relaxation, and to narcotise the child. We prefer the half-size tablet in these cases, repeated in one-half to one hour if necessary. Until the doctor is familiar with the action of this remedy in labor cases the half-size should always be used. The full tablet should be employed *only where rest is essential and bearing down is not necessary*, and *never* late in labor.

We would further urge that caution be shown in using this remedy in all cases where the condition of the kidneys is unknown. Even remedies ordinarily comparatively harmless are unsafe if the kidneys are not pervious. One-eighth grain of morphine has killed a patient whose kidneys were incapable of eliminating the drug, which was left to circulate again and again in the blood and reproduce its effect time and again until the patient succumbed to it. Under similar circumstances a single grain of calomel has proved fatal; in fact almost any agent capable in any dose of exerting a lethal action upon the human economy is perilous under such conditions. We would therefore urge that more attention be paid to the kidneys before the administration of this remedy.

In comatose conditions it is obvious that the H-M-C should not be employed, for the same reason that morphine should not be employed. In coma from eclampsia, from uremia, from jaundice, from diabetes, from any condition whatsoever, the condition of coma should constitute a contra-indication to any remedy of the sort. If the system is so overwhelmed with toxins of any sort that produce unconsciousness,

it is perfectly evident that no remedy which itself produces unconsciousness could possibly be indicated. We cannot conceive of any reason why a remedy of this sort should be given in any case of the kind! Nevertheless, this is exactly what is being done by some of these reckless men of whom we are speaking. How is it possible that obloquy could not fall upon a remedy which is used in such a manner as this? In this way a deserving remedy may incur unmerited blame, and the progress of medical science be retarded.

Sufficient caution is not being displayed in the administration of this remedy to young children. In several instances it has been reported to us that children of thirteen years of age and under, receive full doses of this remedy, repeated within half an hour. We cannot conceive of any condition whatsoever, which should warrant the administration of such an amount of morphine alone, to say nothing of other ingredients, to a child of this age. In many cases where morphine is required by a child of thirteen years of age, from 1-16 to 1-12 of a grain will give all of the relief which is desired.

Whether the H-M-C is to be used as an anesthetic to quite young children, is something which the profession must tell us. For these children, it is well known that chloroform is as safe as it is effective; and when chloroform is not needed for minor operations, requiring but a short time, nitrous oxide does well. It is yet to be determined whether a similar safety and efficacy pertain to the use of H-M-C; if so, the enormous advantage which it otherwise gives will render it a favorite here as it is in the surgery of adults.

Too little attention is being paid to the accessories which Lanphear and others have suggested in the use of this drug. Perfect quiet in the sick-room, the influence of suggestion, and so on, are being neglected; consequently the patient is sometimes too disturbed to allow of a proper anesthesia resulting. As Michael Angelo said, it is the little things which make perfection, and perfection is no little thing.

In dealing with an anesthetic whose action on the sensory centers is less than upon the periphery, it is especially essential that such considerations should not be lost sight of.

There have not been enough reports as yet made upon the use of the H-M-C as a preliminary to ether. The suggestion has been made, however, that just as chloroform would be preferred when vascular tension is excessive, ether when vascular tension is too low, so in the latter condition ether should be used to follow the H-M-C instead of chloroform. We have nothing to say against this suggestion, and we believe it should receive clinical verification.

One other suggestion we wish to make, and it is an important one! Most of those who report to us on the use of this anesthetic, tell us that they have used it in "some," "many" and "numerous" cases. If they would kindly specify as nearly as they can, the exact number of cases in which they have used it, it would aid us immensely in our tabulation of results.

W. C. ABBOTT

Chicago, Ill.

SOME TEXAS DISEASES

The drawbacks in the way of disease in this part of the country are fevers—*not* the ague, or old-fashioned "chills and fever," nor the remittent fever of the North, but a fever due to the soil, heat and water, especially the latter, for in most cases the well-water in the country is obtained from wells from twenty to forty feet deep and seeps from the surface through a soil ever in a state of ferment, because of climatic conditions.

This fever is in some characteristics similar to typhoid, in others it resembles the dengue, and yet it seems to go no farther than to a point intermediate between both. One of the peculiarities of these cases is the constant yellow skin, yellow conjunctiva, and the continued character of the fever. This fever ranges from an attack so mild that it only produces disability to work,

with a pulse about 90 to 100 and a temperature of from 99°—100°F., to a point where the pulse reaches 120 to 130 and the temperature 102°—105°F. There seems to be no spontaneous termination of this fever. The tongue is coated a light-brown, never cracks, nor are sordes found in the mouth, and the patient lies in a listless condition, refusing all solid nourishment.

Calomel in these cases is worthless, and the persistence of discoloration of the skin and eyes is perhaps the most prominent feature.

An occasional case is met with in which diarrhea is present, but I have never seen tympanites as a complication. Quinine, in any dosage, aggravates this fever and will in a short time produce violent delirium, hence it is contraindicated. This fever is not contagious, and while occasionally two or even three cases may occur in one house, yet it seems to be due to surface water saturated with organic matter. The variations of pulse and temperature are quite uniform, so that any diminution in pulse-rate is usually followed by a lower temperature.

So far I have had no deaths from this fever and my treatment has been gelsemium, bryonia, aconite, and chionanthus in all its early stages, with Fowler's solution when the pulse drops below 100 and the temperature ranges from 99°—100°F. I keep the bowels open, order tepid soda baths, and give tablets of sulphocarbolates, and calcium sulphide. For typhoid fever I have frequently to push the gelsemium to the first toxic symptoms to obtain control and break up the fever, but not so in this form of fever, which, however, like typhoid gives way under this treatment in from seven to nine days, the only unpleasant condition remaining being the yellow conjunctiva and skin. I do not claim that this treatment is specific but I do claim it relieves vascular tension and, in doing so, opens up the excretory organs of the body and gives nature a free hand in her efforts to rid the system of toxins that always accumulate when the great highways of elimination are by reason of vascular ten-

sion closed up, wholly or partially. Brethren, always give nature a chance to cut her caper.

S. E. McCULLY.

Dallas, Texas.

[Have other members of the "family" had similar experiences with this pseudo-typhoid—or whatever we may choose to call it? These nondescript febrile disorders of the South have been much discussed—but the "discussers" seem of the same opinion still. One thing seems certain: the "clean-out, clean-up and keep-clean" methods are successful here as they are in typhoid, and this Dr. McCully quite clearly shows.—ED.]

THUJA INJECTIONS FOR HEMORRHOIDS

I have just received the October number of your magnificent journal, *CLINICAL MEDICINE*. Regarding a reply to the editorial query as to what is the effect of the injection of thuja into a hemorrhoid I may say that to a sensitive patient the pain induced by a 50-percent injection is considerable but lasts only a moment and is then followed by a sensation of warmth. The pile-tumor does not slough, but shrivels up and soon disappears.

Goiter, injected with this thuja solution, disappears without any scar.

I frequently use this remedy internally in diuresis in old people, who are troubled with frequent micturition, especially nights, and children who wet the bed every night. I give

Thuja, Lloyd's.....dr.	1
Belladonna, Lloyd's.....gtt.	10
Ergot, Lloyd's.....drs.	2
Water, q. s. ad.....ozs.	4

Directions: One-half to one teaspoonful every three hours during the day.

J. E. CALLAWAY.

Chillicothe, Mo.

[Dr. Callaway writes that he is simply "snowed under" with letters asking about this remedy and how to use it. As it is impossible for him to answer all his cor-

respondents in detail, he asks each of them to consider this a personal reply to his questions.—ED.]

INTRAVASCULAR ANTISEPSIS

It is an axiom that prevention is better than cure, but the proper consideration of this subject will have a threefold bearing, viz: (1) to prevent disease, (2) to cure disease, and (3) to render man immune from disease.

It has been proven by the researches of Metchnikoff that the bacteria invading the human system are destroyed in the white corpuscle. Ehrlich advances the theory of compliments, that is, that there are substances in the blood-serum, such as agglutinins, precipitins and lysins, which act as follows: Agglutinins connect the bacteria, precipitins congregate them, and lysins soften the scaly covering so as to enable the phagocyte to absorb them. He also finds another substance in bacteriolysin, which destroys the cell.

Let us go a little further and say, the leucocyte is the scavenger and the defender of the blood-stream and the builder of the tissues—yes, it is the ameba of the blood-stream, and when a solution of continuity occurs the leucocyte can be seen to get in behind the red corpuscles and shove them forward to fill up the gap. He can be seen also as he attracts the bacteria and absorbs them. Now if the leucocyte be sufficiently in evidence there would be no disease, for the proximate cause of disease would be removed. Allowing these three offices (and they are scientific facts that can be demonstrated any day) it follows that if we can multiply the number of the leucocytes, we can control any form of disease. When we examine the blood we find the phagocyte is generally scarce, and the full-grown bacterium has a hard, scaly covering which must be acted on by a lysin or an opsonin before the phagocyte can absorb it.

An opsonic index may be secured by suspending the bacteria in physiological salt solution mixed with equal parts of washed blood-corpuscles and blood-serum. These

three substances are mixed in a sealed glass tube and incubated until the phagocytes can absorb the opsonized bacteria, and then a smear of the mixture is prepared and stained and all the bacteria found in the leucocytes are counted and the average thus obtained of the number in each leucocyte—this is the opsonic index. (See *Ellingwood's Therapeutist*, July, 1907.)

Now, it seems to me, if we can increase the number of phagocytes we can command the intravascular antiseptics at our will.

Nuclein is now the indicated remedy, and Hahn, of Munich, has proven that under its use the phagocytes are increased 50 percent, while Von Mayer, of Prague, reports an average increase of over 75 percent.

I have just dismissed a convalescent from sepsis due to the formation of a pus-tube, on whom, after local antiseptics was tried exhaustively, and the patient continued to have rigors, and other symptoms were present showing contamination of the blood-stream, I determined to try the nuclein-therapy. I am glad to report a decided improvement. Yes, the phagocyte is now "getting his work in" and my patient will soon be safe.

The future of medicine will largely depend upon improvement along three lines: (1) elimination, (2) intravascular antiseptics, and (3) the proper understanding and encouragement of metabolism.

I am happy to say that the sulphocarbolates are the finest local antiseptics I have ever tried. Nuclein is beyond praise, for it cleanses the blood-stream. Yet, let us remember that rapid leucocytosis produces anemia while gradual increase of the leucocytes in the blood-stream is the consummation of an end devoutly to be wished.

Some other time I intend to report a case of sepsis from chronic pneumonia in which the pneumococci were strongly in evidence and the phagocyte came to the rescue.

N. WALTER WILLIAMS.

Waterford, Miss.

--- THERAPEUTIC SUGGESTIONS ---

In acute shock, or syncope, rapidly acting diffusible stimulants are indicated, but

in the condition of partial or imperfect shock, as obtains in the passage of gall-stones, renal calculi or inflammation of a great serous surface, stimulants are undesirable. The more rational plan is to deaden the receptivity of the nerve centers by morphine or the hyoscine-cactin combination.

In hemorrhage, stimulants are undesirable. Quiet and cold are the great requisites.

In hemoptysis, or hematemesis, ice may be applied externally over the chest or to the epigastrium with advantage. Small chips of ice with astringents may be given, but cautiously.

If the bleeding is in the stomach, any distension of it will be apt to dislodge the clot and start up further hemorrhage; if from the thorax, cold ingesta need not be withheld, but vomiting must be avoided, as that might at once reinstate the blood flow.

The physician must never be deterred by fear from trying the effects of emetics in the bronchitis of children. The administration of iodized calcium, however, is the most satisfactory treatment of croup and croupous conditions.

Parenchymatous inflammation is nutrition run wild. It is, however, a conservative process originally. When excessive it becomes baneful, but often it must be regarded as a modification of nutrition far from simply injurious. The treatment of parenchymatous inflammation is a complex matter. To use the language of Herbert Spencer, we have to adopt complex concatenated measures to meet complex concatenated actions.

Laughter is an electrical disturbance, not only productive of stimulating and other pleasurable and curative effects, but it is contagious.

Cannabin in small doses, one or two granules of gr. 1-67 each, given every three hours, relieves the backache of excessive venery. The same drug in full dosage (gr. 1-8 to 1-4, increasing to effect) is a useful remedy in delirium tremens. If given with gelseminine it will usually relieve ovarian colic promptly.

The constitutional treatment of tonsillitis should be the same as for acute articular rheumatism.

Capsicin, gr. 1-137, and strychnine arsenate, gr. 1-67, given until effect, will shorten a case of prolonged labor due to deficient nerve force.

Don't forget to saturate the system with calcium sulphide in the treatment of boils. Clean out the bowels with a saline laxative and tone up the system with the arsenates of iron, quinine and strychnine.

The aphonia of singers and public speakers may be relieved by diluted nitric acid, or by potassium bichromate in doses of 1-100 grain every hour or two, or by allowing a little borax to dissolve in the mouth.

When rheumatism, so-called, occurs in subjects not of a rheumatic character, is nocturnal, and is found among the collar-bones, in the upper arm, and in the shins, then mercury and potassium iodide are indicated.

In rectal hemorrhage, small doses (gr. 15) of magnesium sulphate with diluted sulphuric acid (minims 15) in infusion of cinchona (1 oz.) three times every day, are effective.

Atropine is useful in the vesical irritability of elderly persons, especially during the night, when their rest is much broken by the demand to empty the bladder.

By its stimulant effects on the respiratory centers, and its sedative effects on the vesical centers, atropine may be given with advantage in cases of chronic bronchitis with emphysema, where there is also vesical irritability.

Acute hematuria from Bright's disease, turpentine or cantharides, external injury or muscular strain, should be let alone unless excessive.

Passive hematuria in zymotic diseases requires sulphuric acid; if of vesical origin, give copaiba or turpentine; if menstrual, do not check it until the menses have reappeared.

Valerian relieves delirium due to hysteria, grief and emotional disturbances, while caffeine is useful when the cause is fatigue,

hunger or loss of sleep. The valerianate of caffeine suits all these in doses of gr. 1-22 every ten minutes. But sometimes the tincture of valerian, asafetida or sumbul, in dram doses, will accomplish more than the valerianates.

Solanine has a marked sedative effect on the nerve terminations of the pneumogastric. It is, therefore, of use in all hyperesthetic states, irritative and spasmodic coughs, and those of reflex origin; dose, gr. 1-12, repeatedly hourly.

Incessant convulsive, reflex or nervous cough may be speedily relieved by gelseminine, gr. 1-250, every hour or less. Counterirritants over the vagus in the neck often relieve irritable coughs.

For irritable bladder of hysteric women with constant desire to urinate, gelseminine is an efficient remedy, gr. 1-250, every four to eight hours.

For women who "leak" on coughing, from atony of the sphincter, give cantharidin, gr. 1-500 to 1-250, twice a day. This must not be given if there is inflammation.

When retention of urine begins with a chill from exposure to cold, with fever, give aconitine.

GEORGE F. BUTLER.

Chicago, Ill.

[We reprint this excellent article from *The Medical Council*, Philadelphia. Do you realize what a *dandy* journal John Taylor is getting out? Send him a dollar and get it for an entire year.—ED.]

CALX IODATA—SAVING CLIPPINGS

I wish to add just a mite confirming the results already chronicled as obtained with calx iodata. I have used the same many times in bronchial troubles, with great success, but only came across the chance last evening to try the same in a real genuine case of spasmodic croup. I used it according to methods related in *CLINICAL MEDICINE* so many times and the result—well it was little short of miraculous. That's all that need be said.

I was interested in Dr. H. P. Bagley's clipping file and wish to describe mine. I bought a large ledger, which gave me an alphabet for an index in front. When I come across an article I wish saved, I turn to my index and if the heading is already down I turn to the number of the page indicated and "post" the article away for the future. If there is no heading in the index I enter one with the number of the page I "post" the article on. I started out putting down only the name of the magazine in which the article was found, with the date of issue and the number of page. This worked nicely until I moved and my magazines were destroyed or lost. Of course, if I had had them bound this trouble would have been obviated. Now I paste in the clipping, fastening only the upper margin of the back. This gives me room for a great many clippings on a page. If I do not care to mutilate the magazine or do not want to save the whole article, I make a memorandum on a blank of paper and paste that in. I find this makes a ready reference, cheap, handy file. No cards to handle over, as in the card system, no boxes to be filed away or to be taken down.

S. C. CLEMANS.

Gloversville, N. Y.

CONDURANGIN IN GASTRIC ULCERS AND SUSPECTED STOMACH TUMORS

Discontinue all food for two or three days, allowing some water. Give seven granules of condurangin, gr. 1-67, daily, in divided doses, each dose dissolved in a little water. Start food cautiously, keeping up this dosage and always giving it when the stomach is empty, until there is some improvement. Then gradually reduce the dose to three granules a day, which dosage should be continued for at least three months.

In severe case of gastric ulcer it is sometimes well to allow no food by stomach for a week or ten days. In such cases rectal feeding should be resorted to, temporarily at least.

The preceding is a clinical experience by a doctor who has made considerable use of condurangin.

THE CURE OF "ITCH"

I see in CLINICAL MEDICINE, that Dr. Vamin Bahi Kulkarni, of India, has trouble in treating itch. If the doctor and others who come in contact with this affection will use the following ointment and apply it according to directions they never need to make more than one application:

Sulphur	ozs. 2
Potassium carbonate.....	oz. 1
Balsam of Peru.....	drs. 4
Lard or vaseline.....	ozs. 8

Have patient take a warm water and soap bath and scrub with a flesh-brush for one hour, then the same process without the soap for half an hour, then, after drying, rub in the ointment for the ensuing half-hour.

I consider scabies as purely a disease of the epidermis, the "acarus scabies," the female of which only burrows, making for herself a canal, or canaliculus, in which its eggs are deposited. The male does not burrow, but conceals himself under the scales or crusts which result from the inflammation produced by his partner, or burrows only sufficiently to provide a covering and a shelter. Within half an hour after being placed upon the skin the female has been found to have concealed herself in the epidermis. The burrow which she constructs is arched and tortuous and four or five lines in length, more or less. The acarus has the shape of a tortoise. When fully grown it can be detected by the eye, as a minute whitish point. The young acarus has six, and the mature eight articulated legs, with suckers upon the two anterior pairs, and hairs on the posterior. The head which can be elongated or retracted, is provided with two jaws. The upper surface is covered with spines directed backward so as to prevent retrogression in the burrow. The female leaves behind her in the canaliculus, as she advances, her molted skin, excreta, and eggs,

which hatch on the eleventh day. The mother-acarus is always found at the remote end of the burrow, where it can be seen by the unassisted eye as a minute whitish or sometimes brownish speck, and from which it may be lifted by the point of a needle, to which it clings. The canaliculi can also be seen by the naked eye, and look like scars of needle scratches; they contain the young acari in various stages of growth.

I consider constitutional treatment of no value in the treatment of this affection, as one application of the above ointment, after the burrows have been thoroughly broken up, is always curative. If one fails, repeat the process in five days.

Personal correspondence on medical subjects by readers of CLINICAL MEDICINE will be appreciated.

D. B. WARREN.

Wellston, O.

[This description of scabies, and of the life and habit of the itch mite, is excellent. The treatment described is good. As we recall it, however, Dr. Kulkarin, did not intend to advocate the use of calcium sulphide internally to *replace* the local treatment of this somewhat common skin disease. Of course suitable applications should be used to destroy the itch mite. It is a question, however, whether in troublesome cases the internal use of calcium sulphide might not be of value, in fact this seems to be the case, according to the testimony of our readers.—ED.]

LAWS RELATING TO DRUGS

The druggists of North Dakota have scored without stint the laws passed by their legislature restricting them in selling certain drugs over their counters. All the laws that have been enacted by the national congress and by such states as North Dakota relating to pure foods and cognate subjects have been in the direction of securing, for the public, a square deal. It ill becomes the druggists, singly or collectively, to antagonize all well-di-

rected movements in this direction. The habit of substitution, and of pushing patent medicines that are positively fraudulent on their face, is not legitimate business, and the sooner druggists of the country learn this, and decide to abandon it, the better. There is enough money in their business, when competition is not too ruinous, for them, even when they obey the laws that are being enacted in the different states. There is reform in the air, and it is just as well for the world to realize it, and adjust itself to changing conditions. It would be a sad commentary on the missionary and religious movements that have been going on for centuries if at some time in the history of the world there were not moral progress to be noted. Certainly progress is fully due, and it is gratifying to see that it is entering drug circles, despite the despondent song of some of the druggists' organizations over the country.—*The Medical Sentinel*.

OUR JANUARY NUMBER

The January number of CLINICAL MEDICINE we expect to make the brightest and best and biggest that we have ever attempted. We propose to call it our "Progress" number, because it will tell the story of the growth and development of the alkaloidal idea, and of this, your journal. This number we want to fill with contributions from our good friends—those who feel that they have been benefited by the alkaloidal idea and helped by our journal. We are going to have many pictures—photographs of our friends—both at home and in far off-foreign fields and of scenes which will illustrate the diverse character and interesting features of the doctor's work.

We already have a flood of good things to use in this number but we want more, so we invite you all to send along your contributions. You must do it now. We cannot promise to publish everything that comes to us, much as we would like to. But do not let that deter you from sending in your helpful mite. Do not miss this

number. We expect to make it something great—something which you will want to preserve from year to year. Bring it to the attention of your friends. Get them to subscribe, and do it now.

In this number, also, will appear the first installment of the "Clinical Medicine Post-Graduate Correspondence Course in Therapeutics." A complete announcement of this will appear next month. Look out for it.

"LIMERICKS"

A kidney remarkably light
Said "I guess I'm a floater all right;"
But when it had floated
A suregon quite noted
Tacked it back into place good and tight.

A gall-bladder puffed up with bile
To it's common duct said with a smile
"Do you think I'm a trust?
Open up or I'll bust,
And the stuff in the gut will all 'spile.'"

A diaphragm tired of work
Said "This pumping I guess I can shirk,"
But when it stood still
An atropine pill
Set it going again with a jerk.

An opsonic index marked plus,
Was found filled with ichorous pus.
It was cut out and tied
And some more things beside
By the surgeon without any fuss.

A. H. SOUTHWICK.

Limestone, N. Y.

Who can beat these?—ED.

A GRUESOME EXPERIENCE

About a quarter of a century ago I was living in the middle west, on the outskirts of one of the many cities of that portion of the states, whose growth had been so phenomenal as to challenge the world's wonder. My family consisted of wife, one son and one daughter. We lived in one of the many detached houses of the suburbs, where I could keep my horse and doctor's gig, taking care of them myself, since college days were still not so many years behind me, and my fortune had not kept pace with the phenomenal growth of the city at large.

I had been about my usual visits one morning in late March, when, just as my

horse's head was turned toward home and dinner, someone came hurriedly to the door of a barber-shop we were just then passing and called excitedly: "Come in, Doctor, a man in here seems to be dying!"

I hurriedly snapped the hitching-strap to Dan's bit, tied him to the nearest post, and hastened into the shop.

The place seemed to be full. There were perhaps not more than half a dozen excited men, all looking in evident consternation toward an old-fashioned low lounge, which was in the back part of the room, upon which a poorly dressed man of about forty-five lay rigid, with hands clenched, eyes rolled back, and giving only an occasional slight convulsive motion of his right leg.

Another physician of the place was evidently in charge, but as he belonged to a different school of practice from the one which claimed my allegiance, I naturally kept in the background—especially as he was, at the moment of my entrance, in the act of trying to find the patient's pulse; and presently, feeling for some motion of the heart, he declared that the man had passed beyond assistance.

His last office was to close the eyes of the dead man, which were already glazed and set with the stony stare of death.

Dr. H. made his way through the little group of people to where I was standing, a silent but interested spectator of the scene—old as man, yet ever invested with the elements of originality and awe. He said a few words as to the case evidently being one of apoplexy, and passed from the room.

Now I do not hold with many of my brethren of the "Old School" that to be a "New School" man is to be either a fool or a knave. My experience has brought me into contact with many bright minds, who, while not of my way of thinking, show themselves both able and honest. So professional prejudice is not accountable for my instantaneous mental query as to certain conditions existing in the room, which to my mind pointed to something quite different from apoplexy.

I took my way quietly to the side of the couch, where I made some professional ob-

servations, and then took myself out to impatient Dan, climbed into the gig, and drove thoughtfully home.

"If that is a case of apoplexy, my good Dr. H., then have I never seen one before," was my mental comment as I tied the faithful Dan in his stall, where he fell to munching his liberal portion of oats, and I was at liberty to follow nature's leadings in pursuit of the suggestive odors which came to me from the open kitchen-door.

We had a cheery meal. My boy, I remember, was full of the pranks of his Scotch collie, and his sister had her little tales of school life, to which my wife and I always made a point of listening when there were no guests present, believing that there is no better way of keeping the confidence of one's children than to encourage them in openly relating their school and play experiences—and no better *place* to do it than at table, which is the only common meeting ground in the entire twenty-four hours, where old and young, big and little, may engage in the give-and-take of the every-day affairs of life. Naturally the experiences of my professional life had small part in the ordinary conversation, and there was no mention of the matter just related. But I could not help a subconscious iteration and reiteration of my former exclamation, "If that is a case of apoplexy, my good Dr. H., then have I never seen one before."

The afternoon was spent among my patients, and I became so engrossed in my legitimate duties as to have the circumstance pass completely from my mind; but during the evening I had a call from an old college chum and fellow-practitioner, to whom I related the circumstances of the affair of the forenoon, and who agreed with me that certain indications which were observable about the room would not have been at all likely had the case been one of apoplexy, but pointed very decidedly in the direction of a case of poisoning—we were both inclined to think of arsenical poisoning.

We discussed the matter for an hour or two—neither of us knew the man—and being exceedingly busy with our own affairs we concluded to let the thing slide, and appar-

ently accept the diagnosis of Dr. H., rather than stir up the community with our skepticism.

Several days went by; I learned that the man was an entire stranger in the place, and no friends coming forward to claim the body, he had been buried in the corner of "God's acre" allotted to the unknown dead; no one caring whether apoplexy or arsenic had "carried him off."

The thing made me restless. I couldn't get it out of my mind. For what did I spend those months in college over chemical analysis, with my eyes glued to the lens of a microscope, if I were going to let my fellow human being be sent to his grave, neither knowing nor caring whether he died a natural death or an unnatural one? "What if he had no friends? In the interests of science and for your own peace of mind, find out the cause of the man's death."

That was the soliloquy, and it became so persistent as to banish sleep from my eyes and hunger from my inner man.

It was about a week after the "apoplectic case" had been buried—my wife had begun to suggest that I should take a vacation, or have in a doctor—when I made up my mind I would pay my old college chum a visit, and "have it out" with him.

I put Dan, the faithful, into the gig; I put some other things, also, surreptitiously into the gig, and drove quite to the other end of the town, where my chum had elected to hang out his shingle.

Good luck favored me, and chum being at home, we sat down in his cozy office for a chat. I was too full of my subject to keep it long in abeyance, but as soon as we had paid decent tribute to the formalities, I pitched into the tale of how this matter had taken hold of me so that I could neither eat nor sleep, and I proposed to *unearth* the mystery.

Chum laughed, and asked how I proposed to do it.

"First, by digging, then by hauling, and after that by the use of my microscope," I answered.

"That sounds simple enough," he said, "but have you taken into consideration the

fact that someone may catch you *at* your digging and hauling—and robbing graves is a state's prison offense—if you're caught—even though the occupant of the grave is worth more as a fertilizer than for any other use in the community."

"I've thought it all out," I said, "and if there were any great danger connected with the exploit I shouldn't feel myself justified in risking it, for family comes before science with me; but if you will bear me company—I have Dan at the door, and all the necessary implements—I think we can unearth our mystery in the course of an hour or two and land him in my barn before the moon rises."

"It's 'dark as tar,' I said, going to the window and looking to see if the night were propitious for furtherance of our uncanny expedition.

Chum didn't feel downright enthusiastic over the prospect of bearing me company; I wouldn't urge him, but sat quietly watching the heaven of my suggestion working to move him, first to one window, then to the other; he tried several of the chairs, one after the other, but none seemed to fit his mood. Finally he said, "I'll go—come along."

It was a starless night, with a hint of spring in the humid breath of air that struck our faces as we left the warmth and brightness of my friend's home, to venture on our task of more than doubtful propriety.

I shall never again breathe into my nostrils the smell of freshly turned earth without being carried back in a flash of memory to that ride through the black March night to the little cemetery, a good four-mile drive from my friend's house and on top of a knoll overlooking the town.

Neither of us was inclined to talk; my attention, in fact, was wholly given up to guiding Dan, for, though the roads were entirely familiar to me, we could literally see neither to the right nor the left, and lighting our lantern was entirely out of the question under the circumstances.

We reached the little cemetery without adventure, and being well acquainted with the spot, generally speaking, had no trouble in leading Dan within the enclosure, where

we tied him to a young tree, which was well screened from the road by a clump of shrubs.

I had previously identified the spot where the unknown man was buried, and lighting the lantern with which I had supplied myself, we armed ourselves with the necessary tools and bag, and proceeded at once to the task at hand.

We were novices at the spade-work, but the earth had been so recently turned that we made rapid progress, especially as we were working with the nervous energy which accompanies the performance of so hazardous an undertaking.

In an almost incredibly short space of time we had reached our unlawful plunder, and I proceeded to loosen the screws from the outer box of pine.

Chum had scrambled to the surface, where I directed him to take a turn around a tree with a rope I had provided for the occasion, and then drop the noose end to me, where I stood in the depths of the grave, and be ready to pull when I should give him the word.

Meanwhile I was working at the most desperately awkward job that ever fell to my lot, but I succeeded at last in removing the entire outer covering of the pine box, and the upper portion of the inner one.

Such a repugnance came over me at this juncture that it was all I could do to hold myself to the finish; nevertheless I did, and performing my hangman's office, fastened the noose securely around the dead man's neck and told Chum to "pull for all he was worth."

Instead of standing a bit back from the edge of the grave, he thought to have greater purchase by immediate proximity. But, alas for his judgment in this event! for no sooner had he given one or two vigorous tugs, pulling the cadaver about half its length from the box, than the clayey soil above gave way, and Chum and clay together slid in upon the two of us already in the grave.

For the life of me I couldn't help laughing at the ghastly sight. Chum was not inclined to see the humor of the situation; but muttered a warm-sounding epithet as I gave him a boost to the surface and counseled

him to stand further back. He responded with amiable repartee that "he didn't need any advice on that subject," and proceeded to pull the "dear departed" once more above ground.

We quickly "bagged our game," and hurrying the earth-bank into place, betook ourselves, with our gruesome burden, to the gig.

It was a serious problem to bestow our freight and implements. We finally decided that something must be left behind, and while it was an awful risk, still there was nothing for it but to tuck the spades and lanterns into some neglected corner, and pray to be delivered from the consequences.

We were beginning to see signs of light where the moon was shortly due to arrive, and while it made driving both easier and safer in some respects, in others it added to our peril and consequent uneasiness.

It was a horrible drive—I feel my flesh creep at the memory—but we came safely through it; and after what seemed a small eternity we were safe within the home precincts. We took care of Dan, and then proceeded to take care in a measure of our booty.

After the strain of the night's proceedings it was quite out of the question to make either postmortem or chemical analysis, so nothing remained but that we should dismember our recent riding companion and dispose his parts under the hay, till such time as we might proceed with our scientific investigation.

The "gentle reader" will please pardon some of these ghastly details, but in order to get a thorough understanding of subsequent events it is absolutely necessary to say that we decapitated that body—and further, proceeded to make identification as nearly as we could impossible.

We then put the diverse portions into various bags, and burrowing deep into the hay, hid them from sight, and took ourselves off to a troubled sleep for the small remaining portion of the night.

Next day I made the rounds of my professional visits as expeditiously as possible, and a little after noon drove in sight of home.

The collie was barking and racing across the lawn and when I came within comfortable eye-range I could see he was tossing and worrying a peculiar-looking round object, appealing dog-fashion to my boy, who was watching the play from the gate-post hard by.

Something turned me cold and sick inside; I had not fairly seen the thing—I felt, rather than knew, what the ghastly plaything was which was being so carelessly tossed about my lawn by the dog.

Shouting to the boy on the gate-post, I flung him the reins and bade him drive Dan to the barn and unhitch.

I was over the fence with a bound, possessing myself of collie's ball in a trice, and with the dog joyously bounding at my side got myself into the barn by a back entrance, leaving collie dejected and forlorn at the loss of the erst-while plaything.

This is not a story of *consequences*, and there is but little more to tell. Chum and I carried our investigations to their logical conclusions, and having demonstrated ourselves correct in our premises, proving arsenical poisoning instead of apoplexy, proceeded to reduce further our late carriage-companion to lower terms by denuding his bones of their "too, too solid flesh," and stringing them up to serve the useful purpose of school-room skeleton.

But one more brief scene ere the curtain drops on this drama of real life.

The mud and gloom and brown hill-sides of March had given way to the bloom and brightness of May.

My fellow townsmen were a patriotic sort, and we climbed the hill to the cemetery on the thirtieth of the month to pay our tribute to the "Boys in Blue."

Chum came along just before we got to the gate, and we walked shoulder to shoulder through the entrance. We spoke below our breath of the last time we had seen the place together, and then took our position with the group around our soldier's monument to hear a brief speech, at the conclusion of which we were each handed a flag, and asked to put it at the head of some soldier's grave. I carried mine over to that nameless

grave, fraught with such perilous interest to me, and thrust it into the soil.

JOSEPHINE BASSETT TICHENOR.

[This, we are assured, is a true story. While Mrs. Tichenor has presented it in an attractive literary form, we are also in receipt of a letter from the doctor whose experience is recorded, who tells us that the facts, as given, actually occurred. For somewhat obvious reasons he wishes to remain "incog."]

There are few classes of men who have stranger adventures than the doctor. We have often wondered why they are not more often put on record. The columns of CLINICAL MEDICINE are open to the "family." Tell of us of the humorous, dangerous, gruesome or remarkable episodes of *your* life, Doctor.—ED.]

LINES WRITTEN IN A REST-CURE

(With apologies to R. Kipling).

When the rest cure's last meal has been eaten
And the dishes are washed and dried,
When the oldest cow has been butchered
And the youngest chicken has died,
We shall fast—and faith we shall want to,
Be empty and such things eschew,
'Till the hunger of all good stomachs
Shall set us to eating anew.
And those that are fat shall be happy,
They shall sit in a dining chair—
And eat from a ten-pound pork roast.
With entrees of heaviest fare.
They shall have real cows to milk from,
Beans, and corned-beef and slaw,
They shall eat for an age at a sitting
And never be full at all.
And nothing but hunger shall urge us,
And none of the stomachs shall pain,
And no one shall eat for prizes
And no one shall eat for gain.
But each for the joy of the eating,
And each in his separate way,
Shall take the food as he wants it,
Whether 'tis onions or hay.

—G. S.

—*Detroit Med. Journal.*

THE SULPHOCARBOLATES AND THE KIDNEYS

Dr. S. H. Rabuck in his letter, in THE JOURNAL for August, speaks of the sulphocarbolates increasing the amount of urine, and asks what the "laboratory men" report. I do not care what the "laboratory

men" say; it is the physician's opinion I want. One of the objections many physicians have to using them in large doses is the fact of reduction in amount of urine, and the phenol effect on the kidneys. I have never given it in larger than ten-grain doses every hour for twenty-four or thirty-six hours. I thought it probably reduced the amount of urine, but as we seldom know the amount of fluids taken I do not know if it does so. I am certain it has done no harm to the kidneys in my cases. Dr. Francis told me two weeks ago he was giving a woman two of these tablets every two hours, between doses giving zinc and sodium sulphocarbolate in solution to make 40 grains every two hours for more than thirty-six hours. He then stated that "it has not affected the kidneys, and the stomach very little." But it brought down the fever four degrees.

J. M. JONES.

Starke, Fla.

[I have used the sulphocarbolates for twenty-five years, giving them probably in as large doses as any man living, at least I have given zinc sulphocarbolate up to two drams in twenty-four hours and have never yet noted or heard of the slightest carbolic-acid effect upon the kidneys or the blood. As to the effect in reducing the amount of urine I never have noticed any appreciable action of the sort.—ED.]

A CLINIC READER WHO IS WELL SATISFIED

I appreciate very much, in fact I like CLINICAL MEDICINE better every month. I can say that I get more out of it than I do from any journal of the five I subscribe for.

I herewith hand you a picture of my home, away out in the country in south-east Texas, where I do a good, nice, clean, pleasant practice for good, plain, honest country people; where I live at home, raise my own meat and lard, vegetables and fruit, milk and butter, chickens and eggs, and even my own horse-feed. We

have our own potatoes and syrup, in fact we raise everything we want to that will grow in this mild, semitropical climate; and the pure-food law doesn't affect us. I feel that I live under the best government in the world, in the best state in this government, and in the best county in this state,

morphine and hyoscyamine, every fifteen minutes, in hot water, until spasm relaxes. Lobelin in place of the apomorphine if preferred. Glonoin useful. To *cure* asthma treat for autotoxemia—intestinal mainly: Clean out with calomel and podophyllin, 1-6 grain of each every half hour for six



A Texas Doctor's Home

and practice for the best people in this county, and have the best wife and the finest little boy in Texas. He is five years old and can ride anything on the ranch.

J. R. MILLER.

Holly, Tex.

OLIVE OIL FOR GALLSTONES

Much has been written on this subject for the past several years and THE CLINIC would like to know, out of the experiences of its readers, whether the alleged fact that it is a help in many cases, is an empiric deduction or one based upon scientific investigation and therefore demonstrable. Brief reports will be appreciated.

SOME HELPS FOR THE FALL MONTHS

Asthma.—For the acute attack give one granule each of strychnine arsenate, apo-

doses, following with saline laxative or salithia repeated to effect. Repeat once or twice a week if necessary and regulate the bowels by morning flushing with the saline. Sulphocarbolates, of course. If there is a rheumatic diathesis employ calcalith. Raise tone with triple arsenates and nuclein and give calx iodata for alterative iodine effect. Keep this up for weeks and months. Attend to any disorders of upper respiratory tract, as spurs, polypi, etc. Simple, non-irritating diet. Use digestives if nutrition is below par. "Clean out" and "build up."

Biliousness.—Another name for constipation or torpid bowels and due to fecal absorption. Clean out with saline laxative (preceded by calomel, podophyllin and bilein comp.) and render the stools odorless with the sulphocarbolates.

Boils and Carbuncles.—Keep the bowels cleaned out with calomel and saline laxa-

tive and antiseptic with intestinal antiseptics. Give calcium sulphide in 1-6 grain granules to the point of saturation. Six or more granules at a dose, repeated every two hours. Stimulate the digestive tract with quassin and tone up with strychnine arsenate.

Catarrh, Nasal.—Common in the fall. Internally take aconitine, atropine, and calcidin, one of each every one to two hours, to effect. Or take the coryza tablet, at short intervals, adding the calcidin. Locally use the menthol comp. tablet to make an antiseptic wash, and after thorough cleansing apply the catarrh ointment. Push elimination. In chronic cases use salithia, calcalith and give special attention to local condition.

Cholera Morbus.—Clean out the bowels with small half-hour doses of calomel and aromatics, which will also quiet the stomach. Follow with saline laxative, repeated every hour till the bowels move well. Relieve pain with the chlorodyne granule. When the patient is well cleaned out administer a tablet of the intestinal antiseptics every two or three hours. Hot foot-bath and sinapism to the epigastrium if signs of shock. Hypodermic of morphine may be required.

Colic, Intestinal.—Give a granule each of hyoscyamine, strychnine arsenate and codeine every fifteen minutes until relief, or give two chlorodyne granules. Clean the bowel of all offending material with small doses of calomel and podophyllin followed by saline laxative. In colicky infants first clean out the lower bowel with a warm enema, following with the calomel clean-up. Give Waugh's "anodyne" or Candler's "calmative" to relieve pain.

Constipation.—Before commencing any systematic regime, examine carefully for piles, fissures, contracted sphincter or other abnormality, and correct if present. Empty bowel absolutely by the use of enemas, colon tube and appropriate dosage of calomel, podophyllin, iridin and whatever else may be needed—but be thorough. Wash out with saline laxative. To regulate the bowels nothing is better than

Waugh's anticonstipation pills, taken as directed, with descending dosage. Diet, exercise and regularity.

Croup.—In catarrhal and spasmodic croup (not diphtheria) the best remedy is calx iodata (calcidin), which should be taken, one tablet every fifteen minutes to one hour till relief. Give in hot water. In emergencies cause vomiting with apomorphine, supporting with strychnine arsenate and cactin. Tone up with triple arsenates and nuclein and unload bowels and disinfect them with sulphocarbolates.

Diarrhea.—Clean out with saline laxative, deodorize canal with intestinal antiseptics and relieve pain and tenesmus with chlorodyne or the diarrhea and dysentery granule. Stop food until passages are normal, then use great care.

Fever.—In all simple fevers aconitine is the indicated remedy. It may be used alone or combined with other remedies. In sthenic fever the devescent compound (containing aconitine, digitalin and veratrine) is indicated. In asthenic fevers the dosimetric trinity (containing aconitine, digitalin and strychnine arsenate) is the remedy of choice. In fevers of doubtful origin always clean out the bowels promptly by enema, calomel and saline laxative; also the stomach by emetic if there are signs of indigestion. This will often relieve the fever like magic.

Flatulence.—Usually due to indigestion and subsides promptly when bowels are cleaned out and the sulphocarbolates are administered. Forbid all foods which tend to fermentation. Stimulate digestion with quassin, strychnine arsenate and the digestive compound. In the flatulence of infants use the infant's anodyne, or the menthol tablet dissolved in hot water. For the flatulence of women at the menopause physostigmine, 1-250 grain three times a day.

Icterus.—Open with small doses of calomel, podophyllin and iridin, followed by saline laxative. Give morning dose of saline daily. Chionanthin, hydrastin and xanthoxilin are excellent additions to the treatment. Tone the stomach with hydrastin

and dilute hydrochloric acid; general tonic, strychnine arsenate. Avoid fat foods and pastries. Drink abundantly of hot water. Buttermilk is good food. Sodium succinate helps to empty the bile ducts.

Intermittent Fever.—Clean out with calomel and podophyllin, following with saline laxative. Keep bowels aseptic with intestinal antiseptics. During the chill give strychnine arsenate, glonoin and capsicin, maintaining the effect of glonoin with atropine. During the febrile stage the defervescent compound granule may be used. If the bowels are kept thoroughly cleaned out and aseptic a minimum of quinine will be necessary; use the hydroferrocyanide or arsenate. Berberine for splenic enlargement. Hydrastin and populin are valuable adjuvants to the quinine treatment.

Lumbago.—Hot iron or hot stove lid to relieve pain. Dry cups; morphine hypodermics or codeine, when needed. To remove cause use calcalith, with daily flushing with salithia, after thorough cleaning out, and sulphocarbolates till stools are odorless. Colchicine always is indicated.

Measles.—May often be prevented by saturating the patient early with calcium sulphide. This is the best remedy in bad cases and should be associated with aconitine for fever, atropine when eruption is tardy, calcidin when bronchial symptoms are present. Nuclein always useful. Keep bowels in good condition.

Mumps.—Calcium sulphide again—keep the patient saturated with it. Nuclein a valuable remedy in these ceases. Aconitine for fever. Clean bowels out thoroughly and use sulphocarbolates freely. Phytolaccin to be used in cases tending to linger. Anemonin in very small doses if mastitis or orchitis complicates.

Neuralgia.—Usually due to retained waste absorbed from the bowel. Clean out thoroughly, using cathartics and enemas as needed, but being thorough. Keep bowels regulated with saline laxative. Improve digestion with quassin, a digestive, and tone with strychnine arsenate and nuclein. Aconitine sometimes acts like magic in neuralgia; give in *full* dosage, to effect.

Gelseminine improves some cases, particularly periodic ones, while others require quinine, especially in malarial regions. Nuclein is invaluable in many cases.

Rheumatism.—Eliminants of the utmost importance; attend carefully to bowels, kidneys and skin, seeing that all functionate carefully. Forbid overeating and exclude undigestible food and an excess of nitrogenous food. Calomel and podophyllin for the bowels, iridin and bilein for the liver. Flush daily with salithia and give one granule colchicine thrice daily; also give calcalith, 5 to 10 grains every three hours. Of course the bowels should be kept aseptic with intestinal antiseptics. If there is fever use aconitine, veratrine, digitalin and strychnine according to indications. Codeine, or acetanilid and codeine comp. for pain. Immobilize inflamed joints, applying oil of wintergreen under oiled silk.

Scarlet-Fever.—Give special attention to the condition of the bowels and you will escape albuminuria, which is usually due to fecal absorption plus specific poisons; toxins cause renal irritation. Empty frequently with saline and aseptinize with sulphocarbolates. Aconitine for the fever, with cactin for cardiac support. Strychnine arsenate is the best stimulant. Nuclein stimulates phagocytosis and is always indicated. Scarlet-fever often is aborted by the use of calcium sulphide, which when given to saturation greatly modifies the disease. Use only in the granule form. Ordinary drug-store samples are worthless. If urine is scanty give arbutin, gr. 1-6, every three hours, with possibly a little spirit of nitrous ether. Diet carefully, mainly milk, and be especially careful during convalescence. Keep skin anointed with carbolyzed vaseline and wash frequently with carbenzol soap to prevent spread through scales.

Tonsillitis.—The two most valuable remedies in severe forms of tonsillitis (quinsy) are calcium sulphide and nuclein. Give both these remedies in large doses to saturation. If commenced early you can abort trouble. Alternate the sulphide with calx iodata, giving every alternate hour.

The tonsillitis granule, one every hour, is excellent. Aconitine of course when there is fever; and the clean-out and keep-clean idea important. As a gargle make a solution with the menthol comp. tablet and use every hour. Cold compress to throat.

Typhoid Fever.—The sulphocarbolates, when given as below, will cure the vast majority of these cases; no treatment to equal it—try and be convinced. First see to it that bowels are thoroughly cleaned

tute zinc sulphocarbolate; if constipation, sodium sulphocarbolate; while in depraved conditions with tendencies to hemorrhage use calcium sulphocarbo'ate. Treat symptoms as they arise; support heart with digitalin and cactin; tone nerves with strychnine arsenate. and in malarial districts use quinine arsenate to point of toleration. Throughout the disease keep the bowels normally active with saline. Diet of course carefully—but support well with proper



Nearly to the Roof! The New Building of the A. A. Co. Rapidly Approaching Completion

out. Give 1-6 grain each of calomel and podophyllin every half to one hour, and follow in two hours after last dose with saline laxative, repeating the saline in two hours (and again if necessary) until assured that job is well done. Palpate abdomen, and if you suspect fecal accumulation use enemas and high colonic tube. Now come on with the sulphocarbolates. For most cases the combined salts (intestinal antiseptics) act best. Give 5 to 15 grains (more if necessary) every two hours. Go for results (odorless stools) and push remedy to that end. If diarrhea, substi-

food. In convalescence triple arsenates with nuclein. For late nervous complications, lecithin.

Whooping-Cough.—Here is one of the triumphs of the "alkaloidal way." We have demonstrated that calcium sulphide will promptly relieve the worst case of whooping-cough. But it must be given to saturation, one to three grains (best in 1-6-grain granules) every one to three hours. At the same time keep the patient under the influence of atropine, giving it to secure systemic effect, as shown by slight dryness of throat. One of the best com-

binations is the whooping-cough granule, but don't fail to use calcium sulphide also and more atropine as may be needed. Calcidin is an auxiliary remedy of great value in these cases, especially when bronchial symptoms are pronounced; add a tablet or two every two or three hours. Attend to bowels.

W. C. ABBOTT.

Chicago, Ill.

THE NEW BUILDING STILL GROWING

On the opposite page we show another picture of the new plant of The Abbott Alkaloidal Co., and The Clinic Publishing Co. As you will see we have climbed up another story. Now we are nearly to the top. In another month we shall have the building all under cover and a month more after that will find us installed in our more ample and luxurious quarters. We are proud of this building. When completed we think it will be better adapted for the work of a large pharmaceutical plant like ours than that of any other establishment of this kind in the country. Like The Abbott Alkaloidal Co. itself, it is built upon a sure foundation of the best materials, and is bound to stand through all the coming years.

We want you to feel that you have a personal as well as a professional interest in this building. It is being built for doctors by doctors. All our work aims to help the doctor, to make his work more successful, to aid him financially. That's why this business grows at such a tremendous rate—and why "there's no dope for quackery made here."

A SLICK SCHEME

My object in writing you is to expose a slick patent-medicine scheme. In numerous newspapers there has been printed in the last few months the following prescription for liver, kidney and bladder affections:

Kargon comp.....oz. 1
Fld. ext. dandelion.....oz. 1-2
Comp. syr. sarsaparilla.ozs. 3
"All druggists can fill it."

Many of my patrons handed me this prescription, wanting my opinion of it.

Before I knew how it was worked I said that no druggist knew what compound kargon was. I supposed that after arousing the peoples' curiosity the promoters would advertise the kargon for sale at a good stiff price, but later I found out how it was managed. The Kargon Extracting Co. sent agents to the principal druggists with "kargon" put up only in one-ounce bottles, the price of which is \$4.00 per dozen and to the laity 50 cents per bottle. The complete mixture costs 75 cents.

I asked a chemist its probable composition, and he said it was the old compound buchu, juniper and acetate of potassium mixture, and I myself think that is what it is. Of course the druggists will say nothing because they get a good profit on the kargon as well as on the other ingredients, and so they keep their mouths shut.

Still later another prescription has made its appearance in the papers which I enclose. It is no doubt the same medicine company. They call the stuff "prosene compound" and it is to be mixed with compound tincture of cinchona and wine.

N. SAFER, JR.

Herring, Ohio.

GREEN APOMORPHINE "WORKS" AGAIN —CAULOPHYLLIN IN LABOR

There being a dispute as to the length of time green apomorphine retains its potency, I will say that in the spring of '96 I purchased a liberal quantity of that drug. Not knowing of its anodyne properties, and only using it as an emetic, and then rarely, I had a goodly supply left in 1902 when taking post-graduate work at New Orleans. There I learned of its value.

On resuming my work, I began its use in 1-30-grain doses till I exhausted the supply in 1905, and, while I had carried the drug for nine years, it never failed me either as an emetic or to relieve that nervous, exhausted feeling for which it has become so popular. and deservedly so.

Before closing I wish to report a case of rigid os treated with caulophyllin, my atten-

tion being first called to the drug by Dr. Candler in the December CLINIC.

Mrs. —, multipara, age 40, mother of six children. She had always had a tedious labor lasting from twenty-four to thirty-six hours. Not having attended her during any of the previous confinements, I did not know of this, and their living a long way in the country, I instructed them to 'phone me as soon as the first indications of sickness began.

I was summoned during the evening of Feb. 3. On arriving I ascertained that the inaugural pains had begun at about 4 p. m., but, to be sure, they had waited, and now it was 8 p. m. On examination I found a foot protruding through a rigidly constricted os. The patient had a severe shock ten days before, followed by rupture of the membranes, as I decided, as there was no water remaining. A nearer physician being called at that time, I had to take the patient's word. Our teacher of obstetrics used to "wait," so I waited three and one-half hours, making occasional examinations, and during all this time the pains were severe and only five minutes apart. At 11:30 I got tired of waiting and going to my vial-case I took twelve granules of 1-6 grain caulophyllin, dissolving them in eight teaspoonfuls of hot water, instructing the nurse to give a teaspoonful of the liquid every fifteen minutes. After the second dose I noticed the pains were more potent and so they continued to be, till, after the fifth dose, one and one-fourth hours, a few whiffs of chloroform and the child was born.

The family expressed themselves as very grateful for such a quick termination of labor—only five hours to twenty-four and thirty-six. I said, "The little granules did it!"

J. C. DIGNAN.

Wellington, O.

GREEN APOMORPHINE

I notice in an editorial in CLINICAL MEDICINE a reference to that "old lie that green apomorphine is poison." Apropos as to this I want to relate a little experience that came to me a few days ago.

It is no pleasant sight to see a choking woman, who, it appears to you, unless speedily aided, will certainly die. There is not time to put on a mush poultice and go and read up. What is to be done must be done now. I took time to think, at least I thought. All my efforts to get the obstacle, a bean, down the esophagus were unavailing. In my "thoughts" it occurred to me that I might put a dynamite bomb under it and bring the bean up. So I bethought myself of apomorphine. You know, it has a powerful uplifting influence on the contents of the stomach. If we could force the contents of that organ "up" and out, we ought to get that bean away from its lodgment and thus relieve the situation—I mean the woman.

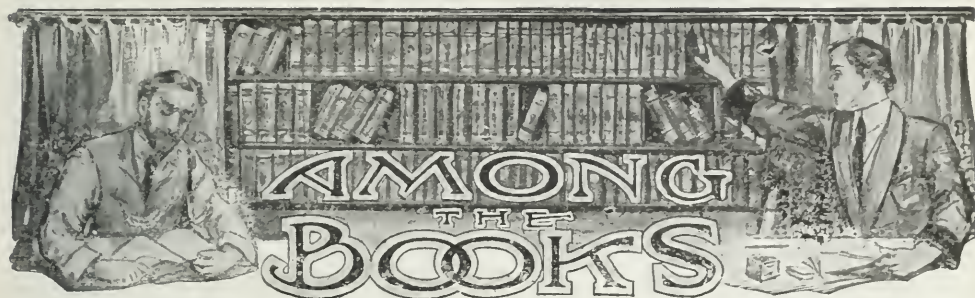
So I looked over my hypodermic case and got out a bottle of apomorphine tablets, gr. 1-10, that had been in that selfsame bottle for good fourteen years. They are as green as green can be. The solution is green also. I send the bottle with a few tablets remaining in it, for you to see and try if you so desire. The tablets are active yet, for in about four minutes they completely relaxed the woman and she swallowed the bean, but the drug, true to its nature, brought "up" everything there was inside the stomach. The relaxation was complete, and I might say almost pitiful to behold. Of course, the nauseated condition of the patient helped to make up the picture of woe. Her pulse weakened. Again I "thought," but of strychnine this time, and everything went well the physiological condition of the patient rising to par and remaining there.

As you say, you need only to try these tablets to nail that oft-repeated lie, that green apomorphine is poison. It is just as good and safe "green" as when fresh.

M. G. PRICE.

Mosheim, Tenn.

[We received that ancient bottle with those old, partially disintegrated tablets of apomorphine—*green*. Yet Dr. Price proved they were still effective. This is another illustration of the perpetuation of error by blind, unquestioning adherence to traditional "authority."—Ed.]



BLAIR'S "MATERIA MEDICA AND THERAPEUTICS"

This is a little book of 253 octavo pages, bound in cloth; and published by *The Medical Council* of Philadelphia. It is by no means simply one book more on *Materia Medica*. On the contrary, no matter how many of these works you may have in your library, you will find much that is novel and interesting and of edification in this little volume. A few specimens taken at random here and there from the earlier portions of the book are given among the "Therapeutic Nuggets" to illustrate this remark. The reader will find many similar points of practical importance in it. We are all the more pleased in speaking thus favorably of the book, since in some vital respects we have to criticise it. In that portion in which the author attempts to discuss the alkaloids, here it is plainly evident that he has entirely misconceived the subject. In fact, he has not given it any study whatsoever, excepting from the standpoint of its opponents. We judge that whatever views he has on the matter have been taken from published expressions of John Uri Lloyd. We have already called attention to Mr. Lloyd's fundamental misconception of this matter. Lloyd and Dr. Blair persist in looking on the alkaloids simply as substitutes for the plants from which they are derived. To them the whole matter is comprised in the statement that no alkaloid exactly represents the plant from which it is derived; hence they exclude alkaloids from their use. We have over and over again explained this matter,

and stated that the alkaloids are not used because they come from any particular plant, nor are they used as a general thing or necessarily in the same diseases and for the same reasons that the parent plant is used; but their use is dependent upon their own properties as ascertained by experiment and clinical trial.

We do not use quinine today because it comes from Peruvian bark, but because it is quinine; and we know much more about quinine, how to use it and what it does, than we ever could tell from Peruvian bark. So with the other alkaloids, their use is based upon their own properties, and our reason for preferring them to other remedies, is because these properties have been ascertained with a certainty which is impossible in the case of the native plant. We may be able to guess what opium will do, and what it may possibly do under certain circumstances. We *know* what morphine will do.

CARUS'S "RISE OF MAN"

The Rise of Man. A sketch of the Origin of the Human Race. By Paul Carus. Illustrated. Chicago: The Open Court Publishing Company. 1907. \$0.75.

The object of this book is the defense of evolution, and of the common origin of man and ape from some animal now extinct. Of course the author operates easily with millions of years and with no personal intelligent agency that existed back of that which a theist calls creation, but which a non-personal theist calls by the vague word "nature." Those who differ from these

views are called "reactionary," the great Virchow included.

There is a very useful sketch of data connected with the evolution doctrine. The evolution of the author is not quite that of Darwin and Spencer, nor that of Huxley. The author, as a profound and original thinker, and withal inherently religious, sees the defects of these authors' systems and endeavors to put to rights an evolutionary system of his own. But one thing stands firm with the author, namely, that the human being is of a co-simian origin. And so firmly rooted is that belief in the author that he reproduces "by permission of Prof. Ernest Haeckel" a picture by Gabriel Max of an ape-man with a wife and infant at her breast. And the religioesthetic nature of the author sees in this to us unbridled pseudoscientific fancy of the painter's work a close resemblance of the scene represented by the same artist of a picture of the holy family. I prefer to let this pass without comment.

There are many excellent pictures of various apes in this well-written book, and these and the excellent language of the whole book are well calculated to win the reader to the author's views on evolution. Unfortunately space in these pages is narrowly limited to the review of non-medical books, otherwise it would be a great pleasure to break a lance with the philosophic author in giving a reason for the scientific faith that is in us. As it is I will conclude with a parable by Prof. Robert Gersuny, the well-known Vienna surgeon. In his delightful "*Bodensatz des Lebens*" (*Sedimentations of Life*) he has the following:

"When the apes became informed of Darwin's doctrine of evolution they at once proved that the ape descended from man, with whom the latter indeed still has considerable similarity, but who (man) must be regarded as in every respect less perfect than himself (the ape): man is naked, has only two hands, his undeveloped hind extremities are fit for walking only upon the ground: he still eats flesh, kills his like and other animals; he lives, it is true, in

herds but in continual conflict and quarrel. The ape on the other hand has a warm garment, dwells above the ground, and has four hands adapted to every work and for moving forward rapidly from branch to branch; he feeds upon fruit only and lives peaceably and anarchically in great unions, of like-minded ones. He is bodily and mentally the crown of creation."

KERR'S "DIAGNOSTICS OF THE DISEASES OF CHILDREN"

Diagnostics of the Diseases of Children. By Prof. LeGrand Kerr of the Brooklyn Postgraduate Medical School. Fully illustrated. W. B. Saunders Company., Philadelphia and London: 1907. Price, \$5.00.

The author did well in denominating this most valuable pediatric monograph not diagnosis, but diagnostics, that is thoughts and suggestions which will occur, or rather ought to occur to a physician when he tries to fix upon a diagnosis in a pediatric case. When you have visited such a case and come home, or to your office, and think of it, then take up this excellently written book and turn to the surmised symptoms or name of the disease, and have a most profitable chat with the doctor about it, and you will not be likely to overlook any important item about the diagnosis of this case. I call this book a Diagnostic Apparatus.

HEISSLER'S "EMBRYOLOGY"

Embryology. A Text-Book for Students of Medicine. By Prof. John Clement Heissler of the Philadelphia Medico-Chirurgical College. 212 illustrations, 32 in colors. Third thoroughly revised edition, W. B. Saunders Company. Price \$3.00.

Embryology has become a regular part of a medical curriculum and of the examination for the degree of doctor of medicine. Recent works of anatomy contain more or less extended chapters on the subject. Meantime, as the thirst for more and more knowledge of the mysteries of life has urged us on in the study of embryology,

its connection not only with anatomy and physiology, but also with the pathology and etiology of disease, becomes exceptionally valuable. In the last ten or twenty years, great progress has been made in this line of study, involving changes and modifications of our views. These require new text-books and the one before us by Prof. Heissler presents us with the last ascertained facts, which either confirm or question old accepted views on this subject.

PRACTICAL MEDICINE SERIES

Of the Practical Medicine Series we have received this year, Vol II General Surgery, by Dr. John B. Murphy, price \$2.00, which gives an excellent review of the progress made throughout the world in surgery during the year, up to the publication of this volume. While discussing mixed anesthesia of scopolamine-morphine and its danger, Dr. Murphy does not mention the hyoscine-morphine-cactin anesthesia, although it is largely used and generally welcomed.

Of the same series we have received Vol. III containing the retrospect of progress made during the past year in the subjects of the Eye, by Casey A. Wood; the Ear, by A. H. Andrews; and the Nose and Throat, by G. P. Head. The Year Book Publishers, Chicago, \$1.50.

BRYCE'S "KITTY DIXON"

Last night we spent a very enjoyable hour with a little book recently sent us by C. A. Bryce, the editor of *The Southern Clinic*. The book is entitled "Kitty Dixon." It is a simple, unaffected little story, bearing every evidence of its literal truth, concerning the experiences of a Confederate officer after the close of the Civil War, and of a Federal officer who had purchased property and settled near the Confederate in Virginia. The only fault we have to find with it, is that it is too short! The subject matter is well worth elaboration into a much larger volume than the present one. Nevertheless, if you wish to be pleas-

antly entertained and at the same time edified by adding one more little touch to the picture of the condition of things as they were at that time, as described by an eye-witness, get this little book. The charm of the work lies in its simplicity, in the utter absence of anything like partisan rancor, and the suggestive lesson that the angry feelings excited by the conflict subside under mutual helpfulness, the appreciation of our neighbors' difficulties and our readiness to extend aid. Frankly, as we said before, there is not enough of the book; we hope that at some time Dr. Bryce will expand it, taking the present volume simply as an outline; which he can well afford to do, provided at the same time he can retain the simplicity which makes this book so readable. The price of the book is 75 cents, and it may be obtained by writing to the editor of *The Southern Clinic*, Richmond, Va.

CUTTER'S "FOOD AND DISEASE"

Food, Its Relation to Health and Disease, By Ephraim and John Ashburton Cutter, New York. The Gazette Publishing Company, 1907. Cloth, octavo, 384 pages.

There are two varieties of writers medical, the tame and the wild. If you take up a book by a tame one, you are pretty sure to find everything quite correct; the opinions that are generally received and sanctioned by the highest authority. The books are pretty much alike. In fact, any deviation from the regular course would be frowned down by the sort of people who write and who read these books. The works of the wild authors are altogether different. You will find they are full of ideas, full of variations and deviations from the ordinary orthodox opinions. Some of them you will smile at; plenty of them are not at all well established; in fact, many of them are simply theoretic, and have never received even a trial, much less the sanction of authority. Nevertheless, a whole lot of them are true, and among these things you will find the growing points of the science,

the things that are in advance of the time, the things that will be orthodox twenty or thirty years from now. If you have the judgment to pick these out, if you have the independence to be willing to give ideas a trial, even although they have not yet been established, this is the sort of a book for you. If you also have the judgment to reject unhesitatingly things that you know are not correct, this is the book for you. At any rate you will find the book interesting. You will find it instructive; you will find in it many things that you would not have thought of yourself; and you can hardly arise from the study of this book without being edified and instructed, as well as entertained. The Cutters are great workers; they go into any path that offers; they try any idea, however wild it may be. They are everything but orthodox. It is extraordinarily easy reading, being written in the style which commands attention and makes what it says easily retained in the memory. Altogether this is a book well worth while, one which will repay the expense of getting it and the trouble of perusing it. The chapter on the care of the aged is especially interesting; also those on food in acute, chronic and surgical diseases. In fact, we have not examined a single chapter of the book, which we have not found to be interesting and instructive.

EISENDRATH'S "SURGICAL DIAGNOSIS"

Surgical Diagnosis. By Daniel N. Eisendrath, A. B., M. D., of the Illinois State University, the College of Physicians and Surgeons, Chicago. 482 original illustrations. Philadelphia and London: W. B. Saunders Company. 1907, \$6.50.

While surgeons of our day and of our country are bolder than surgeons ever were, and while under the blessings of anesthesia and asepsis, they even can with safety undertake an extensive exploratory operation, yet are our surgeons the most

thorough in every detail that appertains to the healthy, the internally diseased or externally injured human body. The surgeon of today is expected to be a thorough physician, and must make a sure diagnosis before he uses his hand on the patient.

Surgical diagnosis is not a diagnosis by a surgeon but a diagnosis by a physician of a trouble for which the handiwork of a surgeon is required. The excellent book of Dr. Eisendrath before us is not written exclusively for the operating surgeon but for the nonoperating physician, who surrenders a case to the surgeon simply because surgical operations require acquired skill of hands, handicraft, for the greater safety of the patient. We therefore, heartily recommend this extensive and lucid work of Dr. Eisendrath to every practising physician as one of the most valuable of medical monographs.

MURDY'S "OBSTETRIC GUIDE"

The Obstetric Guide, being a Treatise on Pregnancy and Childbirth. Prepared especially for the laity by Robert L. Murdy, M. D., Aberdeen, S. D. News Printing Co. 1907.

This excellently written book came to our office and to the writer's desk, with the compliments of the author, with no request for review, which however we give after going through its pages. It is one of those valuable books which come from private practice and therefore is of living use for the general practitioner. If the reader knows how to appreciate the morals of an author he will enjoy the genuine pathos of the dedication of this book: "To the memory of my mother, who died a victim to puerperal fever in the preantiseptic days in obstetrics; to the mother whose life paid the forfeit, this book, intended for the enlightenment of all women, is reverently and lovingly dedicated by her son."

An exceedingly appropriate book to put into the hands of a young married woman.



CONDENSED · QUERIES · ANSWERED

PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

QUERIES

QUERY 5317.—“Detachment of Placenta.” W. H. M., of West Virginia, asks in a communication: “At what stage of labor does the placenta normally become detached? If it should occur during the first stage, could the child live in utero? If child was born and cord tied next to child only, at the same time placenta not detached (which often happens) could not the mother die from hemorrhage through the cord?”

The placenta does not separate fully from the uterine wall, in the majority of cases until the child has been expelled—the “third stage,” as you know, in normal labor consists of the separation and expulsion of the secundines. Not seldom however the placenta separates earlier and may be expelled *with* or immediately after the fetus.

The placenta being the essential nutritive and circulatory organ of the fetus, its entire separation from the uterine wall prior to the expulsion of the child from the uterus would mean death to the latter. We know now that it is *possible* for the child to breathe *intra vaginam*—but it rarely does so. Until the child has an individual existence—until, that is, it has breathed, the placenta and cord are the sole mediums of vitality. Should the placenta become detached prior to escape of child into the vagina circulation would cease and the fetus would die.

Our correspondent's questions may be answered categorically, thus: (1) Late in the second or in the third stage, “at or just

prior to expulsion of the fetus the placenta is partially, or wholly, detached from the uterus.”—(Edgar). (2) It would be impossible. (3) This question is ambiguous: If the child has been born and the fetal end of cord tied—the placenta being still attached (partially or *in toto*)—hemorrhage could not possibly occur “through the cord.” Intrauterine hemorrhage (partially separated placenta with non-occlusion of uterine vessels) might easily prove fatal to the mother. Here the proper thing is to tie the cord in two places, sever between them, and speedily fully detach and at once deliver the placenta.

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QUERY 5318.—“Gonorrheal Arthritis.” H. M. F., of Georgia, asks what he can do for a chronic case of gonorrheal arthritis in ankles and feet; joints very tender, slight swelling, thickened sheaths of tendons, inflammation not acute; a chronic condition. He wishes to know what he can use externally to relieve the soreness. He is using calcium sulphide and mercury protoiodide internally, massage and galvanic current externally.

Gonorrheal arthritis, is not a favorable condition to treat. Compresses wrung out of a saturated solution of epsom salt applied each night relieves soreness, especially if guaiacol is rubbed in first of all. The “rheumatic” (Candler) formula alternated or conjointly with the use of calcium sulphide to

complete saturation, given till all the secretions reek with the characteristic odor, and salithia, one teaspoonful every morning before breakfast, undoubtedly prove most beneficial in many cases. We should feel inclined to use dry heat, or better still, direct light (high candle-power) on those ankles and feet. These are the very cases which respond most perfectly, requiring as they do, increased circulation and local elimination. We should not push mercury to any extent but after a course of the medicine already advised we might give calx iodata in conjunction with xanthoxylin and stillingia.

QUERY 5319.—“Amenorrhea in Girl.” S. M., of Tennessee, describes a case under treatment as follows, desiring suggestions: A young girl nearly eighteen; small and undeveloped, with very small uterus and external organs; has pain in back and a fulness in head, sort of “light-headedness.” She menstruated twice two years ago, very slightly; none since. Has some leucorrhea at times. There is no specific disease. She is a music pupil and practises considerably. He also asks if we know anything about an herb called “master root,” and its uses? It has been recommended to him for retained menses, from colds, etc.

It is absolutely impossible for us to suggest rationally without a clearer conception of conditions. From experience we should feel inclined, however, to give this girl full doses of nuclein and Buckley’s uterine tonic. Here is the idea: one of the “tonic” pills morning and night, and nuclein (preferably with the arsenates, say, two triple arsenates with nuclein after each meal) for twenty-two days, then for the next five days, add potassium permanganate, gr. 1-4 before meals. If any sign of menstrual flow appears cut off all medication until it ceases. If nothing happens, drop the potassium permanganate and return to the first medication, continuing thus until menstruation is established. The girl should take plenty of outdoor exercise, and practise deep breathing and mild calisthenic exercises. The bowels to be kept open with saline laxatives. Further

than this we cannot intelligently suggest a line of treatment without a clearer conception of conditions.

Upon looking carefully over the various authorities we find that there are several masterworts, but no master-root. Angelica atropurpurea, the green- or purple-stemmed angelica or masterwort known as bellyache root, skytes, jack-jump-up, and various other names are given. It is supposed to be aromatic, calmative and slightly emmenagog. We suppose this is what our correspondent had reference to, but helenin, viburnin and many other remedies are infinitely more satisfactory.

QUERY 5320.—“Dysmenorrhea.” F. A. J., Colorado, desires suggestions concerning the treatment of dysmenorrhea, particularly the obstructive and neurotic varieties.

For convenience we may divide dysmenorrhea into two forms. In one it is the object to check the menstrual flow, in the other to encourage it. In the first we generally use Buckley’s uterine tonic, in the other a combination of anemonin, cicutine hydrobromide and gelseminine, one granule of each every fifteen to sixty minutes until the patient is relieved or the eyelids droop. If the flow is excessive, however, the hyoscyamine in Buckley’s admirable combination seems to meet every indication. In habitual forms I have fallen into the habit of giving helonin a grain four times a day, beginning two to four days before the expected period. It is very rare indeed that dysmenorrhea then develops. In all forms the value of attention to the bowels is unquestioned.

QUERY 5321.—“Constipation in Infancy.” W. D. B., Texas, writes: “A child in my care, 4 1-2 months old, has been troubled from birth with chronic constipation. It is well, never has been sick, ordinarily fat, of good size, but bowels will not move without medicine or enemas. Mother is well, but also always constipated. She takes cascara and other laxatives all the while, but this is without effect upon the baby, which is nourished entirely by the mother’s milk.”

It is absolutely necessary in a case of this kind to have some idea of the constituents of the mother's milk. You will probably find it lacking in fat, and so, if the baby were to get a little cream twice daily the constipation probably would disappear. Very small doses of bryonin or one of the sulphur laxative granules morning and night (flipping it into the baby's mouth just before feeding) will also prove efficacious; but as before stated, you must find out why the child is constipated, before you can prescribe a positive remedy. In very stubborn cases it is well to "start things moving" by exhibiting magnesium sulphate solution. Into a half glass of water put about a teaspoonful of saline laxative, a granule of saccharin, and a few drops of lemon juice. Between feedings give two to three spoonfuls of this solution, and you may feel quite sure of results. If there is any tendency to constriction of the sphincter or atony of the bowel, glycerogelatin suppositories may be inserted each morning, but the thing is to have enough fat in the food. The less medication we give infants the better for them. Another plan is to rub the abdomen thoroughly with warm olive oil each night and administer ten to twenty drops of the olive oil at the same time, Lobelin, gr. 1-134, is said to act beautifully.

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QUERY 5322.—"Obstinate Constipation." W. E. D. of Iowa has a case of constipation which he says, "seems almost incurable." His patient is a young lady twenty years of age, with negative family history. Five years ago she had typhoid fever, and gives a history of constipation during sickness. (Was sick about three months; ordinary case, no hemorrhage from bowels.) She was about well when she was taken sick again and confined to her bed for ten months, and from that on she has been an invalid. In September, 1906, the doctor called. He began with the "clean-out and keep-clean" method. Then he tried all the regular laxatives, with enemas, stomach lavage, dieting, exercise (such as kneading the bowels) and galvanic and

faradic electricity. He used these methods singly and in combination, but with no effect. This is the only case, he says, in which the anticonstipation formula has failed him. At present the patient has no appetite, the food seems to distress her, being "belched up," as she expresses it. She has spells of headache, feels weak and tired, but her color is good and she has a healthy appearance. She sleeps well, and has no trouble except with the bowels.

The following line of treatment will frequently cure "obstinate constipation" when nothing else will do so. Dilate the rectum after cleaning out the primæ viæ with a high decinormal salt enema, the patient in the knee-chest position. Morning and night give one-half to one ounce of the following: Magnesium sulphate, white sugar, and water, equal parts by weight. Heat and stir in a double enamel vessel until a clear syrup results, then add one-half the total amount (by weight) of water and bottle, flavoring with any essential oil agreeable to the patient. Have circular massage of the abdomen made at least once daily or use a vibrator. Before each meal give hydrastin, xanthoxylin and juglandin, gr. 1-6 each, the anticonstipation granules, two, three, four, or whatever may be necessary after eating. Gradually reduce the dose and at the same time reduce the amount of the magnesium sulphate solution exhibited. Give foods with plenty of waste, such as whole-wheat bread, fruits with seeds and much cellular matter, and insist upon the patient taking at least five minutes abdominal exercise each morning, showing her how to work the abdominal muscles. Put this patient on above medication and let us know the results, say in a month.

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QUERY 5323.—"Malarial Fever." G. B. D. of Missouri, in a recent letter, says he has two cases of malarial fever, both patients confined to bed, fever ranging from 102.5° to 105°F. He is giving quinine hydroferrocyanide, gr. 1-6. He would like to know how often he should give it. These patients are 5 and 10 years old, respectively.

Malarial fever is, after all, a term which may cover very different clinical pictures, but in nearly every case the first thing to do is to sweep out the alimentary canal (rendering it as free from bacteria as possible), stimulate hepatic activity and render the body-fluids inimical to the plasmodium malariae. Here is the basic treatment: Blue mass and soda, gr. 1-2, podophyllotoxin, gr. 1-12, populin, gr. 1-3, every half hour for six doses every third night. A saline laxative next morning at 6 or 7 and again at 10 o'clock. The "antimalarial" (Dumas) formula (one) every three hours and the sulphocarbolates—5 to 10 grains—every four hours, with plenty of water. Nuclein, 6 to 10 drops, hypodermically or under the tongue morning, noon and night. It may be well to add methylene-blue, gr. 1, to the "antimalarial" formula. In serious cases it may be necessary to give a very full dose of quinine three hours before the expected chill, though we have found, as a matter of fact, that methylene-blue, gr. 1, quinine arsenate, gr. 1-3, hourly for three hours will do better work. A little capsicum or one nux and capsicum tablet may be given with each dose. Quinine hydroferrocyanide is a very useful drug, but do not give it in too large doses; gr. 1-6 three times a day is ample as a rule. Do not forget the advantage in all these cases of keeping the skin thoroughly active and aseptic. A creolinated solution of magnesium sulphate in the regular proportions may be used for a sponge-bath every night. Small doses of acetanilid, caffeine and cactin may be given to "break" the fever. (You will find in the textbook on "Alkaloidal Practice" a very exhaustive and excellent article upon "Malaria.") After you have controlled hyperpyrexia and broken periodicity, the triple arsenates with nuclein (one to two tablets) three times a day, with a saline laxative draught every other morning, and a calomel or blue-mass purge once or twice a week, will prove thoroughly satisfactory. To "break" the chill, exhibit glonoin, gr. 1-134; a dose or two of atropine at fifteen minutes interval

will then promptly relieve conditions. In stubborn cases quinine may often be best given by injection. The sulphate may be dissolved by adding one-half its weight of tartaric acid, but the hydrochloride is readily soluble in less than its own weight of water. The physician who understands thoroughly the importance of a clean intestine and active liver does not have much "malarial fever" to deal with, and the man who treats the individual, meeting conditions as they arise, instead of trying to formulate a set treatment for malaria, soon finds himself victor!

QUERY 5324.—"Facial Paralysis—Post-Partum." R. C. S., of Missouri, asks how we would treat a case of facial paralysis. The affection developed suddenly six or eight weeks after childbirth. One side of the face is drawn, and there is inability to close the eye on the affected side. Headache present. Side of tongue was affected, but sensation is now better. Has suffered some of late with pains and stiffness of rheumatic character in lower limb of the same side. Predisposed to rheumatism. General health only fair.

As a matter of fact, it is not possible to prescribe with any degree of positiveness in such cases, as we lack a clear conception of physical conditions generally. We do not know whether there are any uterine, vaginal or perineal lesions, or what was the nature of delivery. Rheumatism acts as a predisposing element; middle-ear disease must also be thought of. When the neuritis is part of a multiple neuritis, we must find the toxic cause. In this case we believe that thorough elimination and close attention to nutrition will prove effective. It might be well first of all to stimulate hepatic action by exhibiting every other night for one week a tablet-dose of calomel and podophyllin, following this the next morning with a full teaspoonful of saline. Give one of the "rheumatic," Candler, tablets every three hours and, an hour after meals, one tablet of the sulphocarbolates, crushed, with half a glass of water. Just after food exhibit one strychnine and

phosphorus compound granule. After a week give, in place of the latter, zinc phosphide, gr. 1-67, and morning, noon and night avenin (gr. 1) six granules and cactin, gr. 1-67. Have the entire body sponged with epsom-salt solution twice a week. Use one ounce to a quart of water. Vibratory massage of spine and over exit of nerve may well be tried, together with faradism. Neuro-lecithin should be given for at least a month.

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 QUERY 5325.—“Rhus Poisoning.” F. H. F., of Indiana, writes, that he seems to have struck a regular hotbed of poison-ivy. He wishes to know what will control the itching and cure the disease. What is rhus toxicodendron used for?

In all rhus toxicodendron eruptions give at once a full dose of calomel (or blue mass) and podophyllin, following with a saline laxative. Sponge the entire affected area with pure hydrogen peroxide, then apply compresses of gauze wrung out of a strong solution of magnesium sulphate, carbolated or creolinated (epsom salt, 2 ounces, water, 1 quart, creolin or carbolic acid, 15 to 20 drops). As soon as the intense itching has subsided, apply carbenzol freely, or carbenzol ointment. We have found this treatment more efficacious than any other with which we are familiar, though in CLINICAL MEDICINE last year we gave quite an extensive article on this subject. Echinacea in full doses serves excellently in some cases of ivy poisoning. A good preparation of grindelia robusta also proves useful.

Rhus toxicodendron is a peculiar drug, giving prompt results in some cases of rheumatism. The one-tenth-drop granule of this remedy is extremely satisfactory. *Ellingwood's Therapist* has a long and interesting article on rhus toxicodendron.

You may find a saturated solution of lead acetate in alcohol—rubbed in thoroughly—efficacious in dermatitis venenata. One ounce of ammonium chloride to 4 pints of water makes another excellent solution which may be applied on gauze. We have also had some excellent results from guaiacol

applied pure. There is no question of the fact that the remedy which will relieve ivy poisoning in one case will prove inefficacious in another. Internal medication is however always essential.

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 QUERY 5326.—“Dosage of Nuclein in Infancy.” C. H. M., of Indian Territory, asks how many drops of nuclein should be given in twenty-four hours to a child eighteen months old, who has been very low for two weeks with catarrhal enterocolitis; and what nourishment.

To a child of eighteen months we should give three to four drops three times daily, dropping it under the tongue and allowing it to be slowly absorbed. Also allow us to suggest that you give to this babe one to two drams of bovine by the rectum once or even twice daily, adding it to a little starch water or thin gruel, preferably predigested; peptonized milk will also do. White of egg, water and clear mutton broth will benefit the child.

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 QUERY 5327.—“Eczema or Pruritus Hiemalis.” R. E. D., of Illinois, reports a case of a married lady, 25 years of age, who has an affection of the skin, on the face exclusively, occurring annually, and beginning early in the fall at the first suggestion of frost and continuing all winter. Epidermis dry and scaly, with pimples and red spots underneath, alternating with brown patches. Whole face flushed and burning; slight itching at times. Skin appears wrinkled, hard, dry and thick. Complains of a tight, drawing sensation. Careful attention given to bathing of body. Has dispensed with the use of soap on face, also cosmetics. Been using cacao butter. Bowels in fairly good condition.

This patient is suffering from eczema or pruritus hiemalis. Here, once more, Doctor, we have to go back to primal causes and find out why this woman presents this particular disorder under certain conditions. If we are not very much mistaken, you will find auto-toxemia at the bottom of it. Capillary circulation is probably sluggish and innervation deranged. Soap and water must not go

near the face. We believe you will get best results from the following formula: lanolin, 1 part, cold-cream (fresh), 2 parts, carbenzol, 1 part,. Apply on a mask of lint at night. In the morning she can remove this with a warm bran water, made by boiling a double handful of wheat bran slowly for an hour in a gallon of water, straining, and adding glycerin, 2 ounces, and rose water, 2 ounces. The patient should not rub the face, but just gently dab it. Internally give her blue mass and soda, gr. 1-2, iridin, gr. 1-6, juglandin, gr. 1-6, hourly for four doses every third night, and the next morning, before breakfast, a full dose of saline in a glass of water. Between meals, alnuin, gr. 1-6, rumicin, gr. 1-6, and chimaphilin, gr. 1-3. After eating, 4 sulphur compound tablets for one week, and the next week arsenic sulphide, gr. 1-67. Alternate thus.

QUERY 5328.—“Cerebral Pressure In Recumbent Position.” W. H. J., Connecticut, writes: “In a neurasthenic convalescent, whose trouble was simple breakdown from close confinement and worry, what might cause this feeling, viz.: cannot lie on left side, as this causes tremendous pressure in the head; it will wake her out of a sound sleep if she turns on the left side? Sleeps well and is perfectly comfortable on the right side or on back.”

The history given makes me think of hysteria; in any neuropathic we are likely to find just such peculiarities. The writer had a patient who insisted on sleeping with two large pillows under her head as under ordinary conditions she claimed she “smothered.” Indeed twice, she said, she had nearly died before relief came. No abnormality was observable and so one night while she slept the pillows were gently withdrawn and the result noted. It was nil, of course, and when the patient was told the next day that she had lain for hours without the pillows she had to give up her idea.

However, circulatory disequilibrium may cause an individual to feel discomfort in a certain position: tumors pressing, enlarged liver or stomach, floating kidney, diaphragmatic hernia, enlargement of right heart (or

displacement), cerebellar or cord affections—these and many other conditions may cause a sense of fullness in the head under certain conditions, varying with the individual. Without a clearer conception of physical peculiarities and abnormalities in this patient we cannot express a definite opinion. Test reflexes and note condition of heart, liver, great vessels, etc. Have the patient lie on the left side and you yourself note circulatory or other changes. In lithemia, headache occasionally follows the adoption of a recumbent position. We would suggest that the reflexes be tested during sleep also. Headache due to brain tumor or meningeal growth may present only at night or in certain positions (local hyperemia). With the patient under observation, you will be better able to detect the lesion.

QUERY 5329.—“Numbness of Extremities. Phlegmasia Alba Dolens.” R. D. McL., Prince Edwards Island, Canada, asks help in two cases, as follows:

Case 1. Male, aged 53 years, weight 220 pounds, fleshy, thick neck. Has drunk pretty hard. Complains of peculiar feeling in legs and feet all the time (similar to that feeling when legs are asleep caused by pressure on sciatic nerve). Keeps him awake at night very much. The loss of sleep leaves him tired out and despondent. Ordered reduction in meat and whisky, more exercise, salithia, calcalith and intestinal antiseptics, but very little improvement.

Case 2. Female, age 25 years. Was attacked with milk-leg eighteen months ago, after confinement. Treated along usual lines and she improved enough to get around. Feels strong, appetite good. Gained twenty pounds in weight, but there are hard lumps on leg, not raised up but under the skin which is red and painful. Ordered application of magnesium sulphate solution, also ichthyol. Internally, echinacea, the iodides of arsenic, mercury and potassium, and intestinal antiseptic. Not much improvement. Am getting elastic stocking for her.

Doctor, to enable us to aid you intelligently you ought to have sent a specimen of urine from each of these people. You should also

have tested the reflexes in case No. 1. Unquestionably there is more or less autotoxemia and circulatory torpidity in this instance, and we believe you will find from examination of the urine insufficient urea, uric-acid excess and evidence of general derangement of body chemistry. We should be inclined to put him upon a very low diet, give him salt sponge-baths, and salithia every morning; also the rheumatic (Candler) tablet three times a day before meals, with two of the dosimetric trinity granules morning, noon and night, and every third night podophyllin, gr. 1-6; leptandrin, gr. 1-2. A little strychnine arsenate may be given two or three times a day to tone up. Try this treatment for two weeks and then send a clear clinical picture (also urine) and we shall try to outline further treatment.

Now, as to the female (case No. 2), there may be any one of several conditions present here, as you have forgotten to tell us just where the indurated areas are situated, neither do you say anything about the condition of skin, presence or absence of edema of ankle, etc. Is there any leucorrhea or sign of pelvic derangement? How are the bowels? Your treatment would seem to have been correct, but hot compresses of epsom-salt solution together with massage and inunctions of unguentum iodini might prove useful. Internally we should feel inclined to push xanthoxylin, stillingin and rumicin (gr. 1-3 each) three times a day between meals; sulphur laxative, 3 to 4 after eating. A teaspoonful of saline every morning. The elastic stocking is all right. You might alternate the alteratives named with digitalin, gr. 1-67, and iron iodide, gr. 1-12, week and week about. Sometimes a full course of hamamelin works wonders, and lately the writer has had good success in one or two old-standing cases of septic character from inunctions of unguentum Credè. Vibration is to be considered also.

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QUERY 5330.—“Cholangitis.” L. T. T. describes a case, occurring in a young married woman of 22. Previous health excellent except for uterine retroversion, causing dysmenorrhea. Family history good, except

there is tuberculosis on one side. Aug 20, he found her acutely ill, with rapid pulse and respiration and elevated temperature. Temperature normal in twenty-four hours. Three days later it was up again, after a distinct cold stage. Diagnosed malaria. Quinine had no effect, and for two weeks fever fluctuated, sometimes normal in morning, but high in afternoon and evening. Then great tenderness developed in hepatic region; liver enlarged; face, ear, nose and forehead of a “pickled-beet” color. Temperature to 104° in afternoon, and 102°F. in forenoon. Tenderness over gall-bladder extreme. Called counsel, and diagnosis of hepatitis with liver abscess made. No dysentery, typhoid fever or any such trouble in the family. Very ill ten days, then improvement, and patient was able to sit up in bed, though still some elevation of temperature. Then fever came up again, and a prominent Nashville surgeon was called who made a diagnosis of liver abscess. He aspirated in every direction but was unable to find pus, but was certain the abscess was there. No operation permitted. The doctor asks suggestions.

The fact that the doctor fails to state whether there is cachexia or leucocytosis puts us in an uncertain position, which is accentuated by our lack of knowledge relative to stools, urine, local conditions (tenseness of muscle, presence of tumor, palpability of gall-bladder, etc.). The very severe pain, presenting as it did after two weeks or more of intermittent fever, would lead us to suspect an acute cholangitis (intrahepatic), but you seem to have had no vomiting or jaundice. This is unusual. An initial acute cholecystitis would give us the pain and fever (slight) with chill but the pain would radiate to the back and shoulder, there would be jaundice and we should expect vomiting; some enlargement of the gall-bladder would be detected, and rigidity of muscles would surely attract attention. If you have enlarged spleen, light stools, urine showing albumin, bile pigment and casts, we should suspect cholangitis following a septic cholecystitis. The history, absence of pus, sudden drop in temperature with continuance there-

of, and sex of patient, lead us to this conclusion. However, it is possible that you have multiple small abscesses (ascending cholangitis). The treatment is evidently operative, though you may, under the circumstances, hold the opposite opinion. In our opinion, however, the patient should be put in the care of a competent surgeon. Failing such procedure, give your patient inunctions of colloidal silver ointment.

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 QUERY 5331.—“X-Ray Burn.” W. A. L., Texas, has a patient who was burned on the neck and face in efforts to remove superfluous hair. This leaves these areas with the capillaries exposed, giving a characteristic reddened appearance. There are no “open sores”—no trouble except the disfigurement.

The condition described is an unfortunate one, and we fear time alone will produce a normal appearance. The x-ray is more destructive than constructive and we have yet to hear of a preparation which will remedy the red, glistening surface which so often follows the application of the ray. Equal parts of lanolin, glycerin and cocoanut oil have been recommended, a piece the size of a hazelnut being rubbed up with a little fresh cream and applied morning and night, rubbing in freely. Personally I should be inclined to add a little adrenalin chloride and wash with carbenzol soap. Have any of our readers suggestions?

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 QUERY 5332.—“Treatment of Inevitable Abortion.” H. L. I., Michigan, writes: “Will you kindly outline the proper alkaloidal treatment for ‘inevitable abortion’—it’s getting to be a regular bugbear to me. Those cases worry me more than all my other work. When called to such a case, I pack the cervix lightly, and around the cervix pack tightly, fill vagina and put on perineal binder; still the women will suffer lots of pain.”

We are wondering whether you really mean “inevitable.” In the first place, if an abortion is *inevitable*, the sooner we get over the trouble the better, but we cannot quite understand how inevitable abor-

tion could get to be a bugbear to any practitioner. *Threatened* abortion is easily controlled in many cases by rest in bed and a few doses of codeine or a single dose of H-M-C. Of course we must understand the conditions present and the duration of pregnancy. “Inevitable abortion,” we take it, describes that condition which exists just prior to the emptying of the uterus, be the cause natural or induced. We shall take it then that the expulsion of the fetus has been desired and uterine contractions have been set up and the membranes perforated. We are then called to a woman having more or less hemorrhage, pains, etc., and the tamponing of the vagina and exhibition of remedies in these cases usually means trouble. Any good work upon obstetrics will give you the operative technic. Dilation of the cervix (if essential) can be easily performed manually and the uterine cavity swabbed free from debris, etc., with the finger or a blunt curet, a dram of antiseptic solution being meanwhile thrown into the cavity. We would call your attention here to the uterine irrigator, dilator and curet invented by Dr. Sourwine, of Brazil, Ind. This instrument enables the physician to dilate, remove membranes, etc., irrigating at the same time with perfect safety. It is a positive necessity to the modern practitioner who is so likely to be called in to save a woman’s life after the professional abortionist has secured his fee for destroying the child. Where you expect an abortion, to pack the vagina with gauze and put on a binder causes, as you have remarked, “plenty of pain,” and it is dangerous. True, you may twenty-four hours later find the ovum in the vagina, and on the other hand, you may find that you have concealed hemorrhage and maybe have sepsis to deal with. Treatment is almost entirely local, hemorrhage being controlled by hyoscyamine or atropine, followed by hydrastin; “pains” by aletrin, macrotin, caulophyllin, helonin (with hot water) or the hyoscine, morphine and cactin compound; while other symptoms are met with the indicated remedies.



TRUTH!—The war between eternal truth and everlasting doubt is one that goes merrily on.—*Texas Courier-Record of Medicine.*

FINE PAPER.—*The Atlanta Journal-Record of Medicine* for September contains a fine paper on the venereal peril, by H. McHatton.

BOOK REVIEWS.—*The Lancet-Clinic* words a much-needed editorial protest against the ceaseless and senseless multiplication of medical books.

SMALL DOSES.—In small and moderate doses we get the true physiologic action and in the large dose the physiologic reaction.—Blair's Therapeutics.

FELONY TO SELL COCAINE.—The New York legislature has recently passed an act making it a felony to sell cocaine except on a written prescription.

THE CHEMIC ACTION OF DRUGS is quantitative rather than qualitative, while the vital action is qualitative, rather than quantitative.—Blair's Therapeutics.

ADRENALIN.—In *The Medical Herald*, speaking of pulmonary hemorrhage, Good of St. Joseph says that he believes adrenalin to be an agent of great harm in this affection.

DIABETES A GERM DISEASE.—At the last meeting of the British Medical Association, Sir Patrick Manson and Dr. Sambon agreed in referring diabetes to the effects of a germ.—*Medical Record.*

OBJECTIVE SYMPTOMS.—In prescribing for objective symptoms, the larger doses of remedies are usually more generally requisite than in prescribing for subjective symptoms.—Blair's Therapeutics.

NICE COMPLIMENT.—*The Wisconsin Medical Journal* pays a high compliment to Dr. E. L. Boothby, for his eminent fitness for leadership, and energy in directing the affairs of the Council as chairman.

GENIUS IN LARGE FAMILIES.—Robinovitch calls attention to the frequency with which great geniuses were the last of large families of children. Benjamin Franklin, for instance, was the last of seventeen, Coleridge was the last out of thirteen, Washington Irving the last of eleven; while Schubert was the thirteenth out of fourteen.

TAKE YOUR PICK!—Doctor, do you prefer anapragmasia, monopragsmia, or polypragsmia?

NO CHEAP DOCTORS.—There are no cheap doctors, and we should not try to make them so by our business methods; they always want the best.—Secretary's report, American Surgical Trade Association.

SMALL DOSES.—Where small doses are used to merely meet the symptomatology, there is usually a quicker response than when they are employed to combat established disease processes.—Blair's Therapeutics.

PREVENTS MALARIA.—Diemann says that the American pond weed, *anacharis sinistrum*, covers the surface of water and suffocates the larvæ of the *Anopheles* mosquitoes, thus preventing malaria.—*Medical Record.*

A DUTY.—We may turn as we may, drug therapeutics is a characteristic part of medicine, and to understand the action of drugs is the particular duty of the physician.—Krauss, *North American Journal of Homeopathy.*

DRUGS AND POISONS.—In large doses most active drugs may be classed as poisons to a certain degree, and most poisons act upon a narrow area in minute doses, but extend this area in large doses.—Blair's Therapeutics.

LITTLE THINGS.—It will soon surprise an erstwhile routine prescriber as soon as he begins to note the little things in diagnosis and drug action, and to relieve conditions in which he has previously failed.—Blair's Therapeutics.

COMING TO ITS OWN.—Medicine again is coming into its own, its renaissance is approaching, and it is both safe and easy to predict for its future equally great progress and certitude of its victories.—Henry O. Marcy, in *The Journal of Inebriety.*

INSANITY.—Speaking of the early treatment of insanity, Glasscock, in *The Journal of the Kansas Medical Society*, says, elimination by the bowels, skin and kidneys should always be brought as nearly as possible to the normal, and kept so.

BACTERIAL VACCINES.—The H. K. Mulford Company has issued a handsome working bulletin upon Bacterial Vaccines or Bacterines, with the promise of more to come as this interesting phase of therapeutics receives further development.

DEATH FROM CHLOROFORM.—*The Boston Medical and Surgical Journal* for Sept. 19 tells us that a physician of Plymouth, N. H., has just been condemned in a suit for malpractice for causing the death of a patient through the use of chloroform.

ASCLEPIAS will relieve in quite small doses pleuritic pains entirely subjective, resulting from dryness of the mucous or the serous membranes. In larger doses the action is extended to the mucous membrane and finally to the skin itself.—Blair's Therapeutics.

USE ALKALOIDS.—James Burke in *The Lancet-Clinic* suggests that we meet the constant changes in the pharmacopeial strength of remedies by dropping them altogether and prescribing the alkaloids and other active principles which never change.

FLUID EXTRACTS AND TINCTURES.—Many of the therapeutic actions of small doses can not be obtained with fluid extracts and tinctures made in the usual manner, owing to the almost entire absence of certain volatile constituents.—Blair's Therapeutics.

INFECTION.—In *The Medical Herald*, James Burke has an interesting paper upon infection, in the course of which he says: "By the proper correction of the intestinal toxins we cut short the supply from which most of the systemic leucodermis derive their source."

RECIPROCITY.—*The Texas Courier-Record of Medicine* says that a national medical license for practice is unconstitutional; the only remedy for the present condition of affairs lying in interstate reciprocity. We believe our contemporary is strictly correct in these conclusions.

ETHICS AND "A SQUARE MEAL."—It is useless to talk about raising the standard to a man who cannot go to sleep because of a hungry stomach, and no essay on ethics or higher education can be used as a substitute for a square meal.—William Bodeman, at the N. A. R. D. meeting.

GOOD FROM HAHNEMANN.—Rejecting personally the theories of Hahnemann, it cannot be denied that his followers have discovered many facts with reference to the action of remedies individually, and have introduced into medicine very many valuable drugs.—Blair Therapeutics.

NERVE!—Our admiration for the nerve of Adoniram B. Judson is still further enhanced by noting the appearance of his celebrated article on "Recumbency," etc., etc., in *The Indian Lancet*, published at Calcutta. We are anxiously waiting for our Japanese exchanges to come in.

ANTIZYMOTICS AND FEBRIFUGES can not take the place of the curet with septic masses in the womb. Antineuralgic remedies are of little avail with a suppurating middle ear. High colonic flushing will often do much more than intestinal antiseptics. Medications for catarrh will not remove polypi. Abdominal pain may be due to appendicitis.—Blair Therapeutics.

ALCOHOL NOT NECESSARY.—In *The Medical Brief*, Prof. W. E. Dixon closed a rather laudatory article upon alcohol with the following significant words: "Alcohol is not a necessary article of diet for the healthy adult, and to the young it may do serious harm by creating a habit. That's enough."

CHLOROFORM DEATHS.—*The Dental Digest* for August speaks of two persons who died after chloroform had been administered for the extraction of teeth, and two others who died from the extraction of teeth without any anesthetic mentioned. People will still continue to have teeth extracted.

TAKE NO CHANCES!—Pharmaceutical houses which place a proper estimate on the cooperation they have received and are receiving from the retail trade, will take no chances on injuring the welfare of their friends the druggists, by making direct sales to physicians.—Report of the Executive Committee, N. A. R. D.

THE REASON FOR IT.—The extension of the U. S. P. and N. F. propaganda and the results which will assuredly follow it, must make inroads on the practice of dispensing by physicians, and therefore have a tendency to limit the practice of supplying physicians directly with the medicines they dispense.—President Mann, N. A. R. D.

SURGERY OF THE PERITONEUM.—In *The Lancet* for Sept. 7 J. Berry thinks the surgery of the peritoneum has been overdone, and that if we should go back to the treatment of twenty-five years ago, the mortality would be less than at present. If we got the full record of unsuccessful operations, we should be appalled at the showing.

RHEUMATOID ARTHRITIS.—In *The Lancet* for Sept. 14, Llewelyn Jones strongly urges the neural theory of this disease. To make the infection theory fit, he explains the facts of the case by assuming them, as the result of changes in the central nervous system consequent upon the absorption of toxins, in fact, a chronic spinal toxemia.

TUBERCULOSIS.—Hobson suggests attempting to arrest the progress of pulmonary tuberculosis by daily ether anesthesia, continued for half an hour for three consecutive days, with an interval then of two to three days before repetition. He suggests that when abdominal section has been followed by a temporary arrest of tuberculosis, the ether anesthesia may have been the chief factor in the improvement.

IGNATIA.—In *The Medical Arena*, Ellingwood says the indications for ignatia are very similar to those of nux, with the addition that there may be a tendency to mental disorder, hysterical sensations and nervous headache in feeble women, with sleeplessness. As the predominating alkaloid in nux is strychnine, in ignatia brucine, this may be taken as a fair representation of the different indications for those two alkaloids.

FROM PHIL MILLS!—Just listen to this: "It is of advantage to readers of a publication to place before them advertisements of good articles and

new things as they come on the market." Now, who do you suppose says that? Nobody less than Philip Mills Jones! The true inwardness of this may be seen when we reflect that a new thing that just comes on the market cannot possibly have passed the Council on Pharmacy and Chemistry.

ALCOHOL, CHLOROFORM AND ETHER.—Rubin, experimenting with alcohol, chloroform and ether, in the laboratory of Rush Medical College, found that each of these agents prevented the leucocytosis following the injection of cultures; and that the animals to whom either of these three drugs were given died, in every case, while the control animal survived. He also found that these drugs lessened the ability of the leucocytes to take up the germs which they met in the blood.

PICROTOXIN.—In *The Lancet* for Sept. 14, Peter Patterson says that picrotoxin is a preventive of post-chloroform sickness. He administers the picrotoxin as soon as possible after the anesthetic has been withdrawn. He administers about 20 minims of a 2-10 percent solution in sterilized water, hypodermatically, as soon as possible after the withdrawal of the anesthetic, and at the very latest before the patient leaves the table. This would be about 1-25 grain, which seems like a rather large dose.

READY-MADE MIXTURES.—In an address before the Philadelphia County Medical Society, H. C. Wood, Jr., protested against the use of all ready-made mixtures, as hampering seriously the advance of rational medicine. "The symptoms of disease being different in every two individuals, the rational treatment must be modified according to the individual case. He who uses a routine cough syrup is as far astray as he who has a sure cure for pneumonia or typhoid fever." To which we heartily say, Amen.

HIGH PRICES OF FOODS.—The first real tangible effect of the operation of the Pure Food and Drug Law on the retail druggists is that it has brought about general and striking advances in the prices of almost everything that admits of adulteration. This clearly demonstrates one of two things and possibly both; this, that in the past we have been outrageously deceived in the quality of the goods purchased, or else the first hand and the middle man have improved an excellent opportunity to increase their earnings.—President Mann, N. A. R. D.

USEFUL DOCUMENTS.—Half a century ago the advent of the public document in the house, usually a patent-office report, was always welcomed—it was such an excellent thing for the children to make a scrap book out of. It is possible that comparatively few people today realize the immense value of many of the public documents that are now issued by the Departments at Washington. This is impressed upon us by an examination of the annual report for 1906, of the Department of Agriculture. This is a volume which every physician should have, and not only should have, but should read. He cannot fail to be interested in its contents. Take the report of the Bureau of

Animal Industry, that of Plant Industry, the part relating to the control of contagious diseases, to the investigation of drugs and poisonous plants, to the examination of drugs; that part relating to the Bureau of Entomology, upon the insects which carry disease to man and domestic animals. These are only a few of the numerous interesting and instructive papers to be found in this volume.

ANTI-MALARIAL WORK.—Sambon, in *The Medical Record*, says that although measures for the prevention of malaria have been used from time immemorial, the struggle is as fierce as ever. Anti-malarial sanitation appears to be as hopeless as the work of the Danaides. Indeed, one single shower may upset the most costly drainage work, one small rent be sufficient to render the mosquito canopy worse than useless, obstinate intolerance may prevent the administration of quinine. All of which goes to emphasize the importance of sulphide saturation.

CONUNDRUM: "WHAT'S BETTER THAN A PRETTY GIRL?"—At the late Chicago meeting of the N. A. R. D., Bauer and Black of Chicago solved an ancient conundrum, namely, "What is better than a pretty girl?" Their reply was, "Two pretty girls." Their exhibit being in charge of two very pretty specimens and just as bright and intelligent as they were pretty. A similar policy was followed by Tetlow & Co., and certainly it is to be commended. Every time we were in the exhibit room, there was a goodly crowd of visitors around these two booths.

LEPERS.—One case in which the State, we believe, would willingly forego their individual rights in favor of the National government is in the care of lepers. Pennsylvania has one leper, Wisconsin has one, here and there over the country there are others, scattered through the land, and cared for at an enormous expense by individual States or municipalities. It would seem exceedingly desirable if these were gathered together and cared for at one place, where their own mutual society would mitigate the horrors of isolation, and the danger to the community would be reduced to a minimum.

TALBOT HOME AGAIN.—Prof. E. S. Talbot has returned from his European tour. We note that in the organization of the International Association of Stomatology, which has just taken place at Paris, Dr. Talbot is the first honorary president. This is certainly a compliment to America, especially since it could not have been bestowed upon a more worthy representative of our country and profession. The list of officers and consultants contains most of the great names in the dental branch of the profession in Europe. Dr. G. V. I. Brown, of Milwaukee, is the only other American mentioned in the list of consultants.

CHLOROFORM.—At the meeting of the British Association for the Advancement of Science, the president of the physiologic section devoted his address to the subject of anesthetics. He claimed that the deaths from chloroform were more numerous than from other anesthetics, because it was the most powerful and convenient, and therefore more

often used. He pronounced it the most trustworthy of anesthetics. We fear that he had not heard of Dr. Wood of Philadelphia; and considering the eminent position from which he spoke, we trust that measures will be at once taken to enlighten him. Moreover, Dr. Waller's statements were seconded by such men as Sir Victor Horstley, Dr. F. Hervett, Profs. Shaffer and Gotch.

SUDDEN DEATH FROM CHLOROFORM.—In *The American Medical Compend* for June, L. D. Clark discusses sudden death during chloroform anesthesia. Various causes have been suggested, such as fright, fear and anxiety, paralysis of heart and lungs, or of the vasomotor centers; while Houchard looks upon impurities in the chloroform as sometimes responsible. Clark attributes these sudden deaths to chemical reaction between the chloroform and ammonia, forming hydrocyanic acid, and he calls attention to the remarkable similarity in the symptoms of poisoning from this agent and the deaths from chloroform.

CONDURANGIN.—About two years ago we placed before the readers of this journal the data concerning the use of condurangin as a local remedy for cancer. Since that time many physicians have made trial more or less extensive of this idea, but scarcely a report has been received by us. We are exceedingly anxious to obtain reports on this matter. If the drug is of value we want to know it and tell our readers about it. If it does not do good we want to know this also and withdraw the recommendation we have previously given. Will those who have employed condurangin kindly send us in a note as to the result? Let these notes be marked "Personal," and sent to Dr. Waugh for tabulation and comparison.

HOW WE ADVANCE.—The London Philosophical Society pronounced it impossible to navigate the ocean with steam, the same year that it was first done. Bodies of learned men declared slavery a divine institution which could never be broken up, and that the war of the rebellion was a failure, even up to its close. Ten years ago science declared that electricity could never be used as a traction power, and that it was impossible to tunnel the north or east river. Thus every advance of science and truth has met with protest and denials. The jury is demanding proof of the food and stimulant value of alcohol in all doses, not how far it is safe, and when it is dangerous.—*The Journal of Inebriety*.

ADVERTISEMENTS.—At the recent meeting of the N. A. R. D. an exciting debate was held on the question of admitting advertisements to the official journal of the Association. The question was decided in the negative, largely upon the argument presented by Mr. Zwick, who presented an analysis of the report of *The Journal of the American Medical Association* in support of his views. Since this report was responsible for the rejection of the proposition it would be interesting to us as physicians to see it. We trust that it will be printed in full. Druggists are business men and if from the published report of the conduct of our own journal they see fit to deduce the argument, to prevent them from accepting advertisements in their

own journal, we may take a lesson from them. At the same meeting Mr. Engelhard made a vigorous attack on the discrimination which permitted physicians to dispense without legal restriction. The significance of this incident lies in the fact that his remarks were received with marked approval, and a rising vote of thanks was extended to him; the secretary at the same time being instructed to print his address in full, either in notes or separately, and circulate it among the drug trade of the country. It is evident therefore that the drug trade as a body sympathizes with Mr. Engelhard in his endeavor to have physicians forbidden by law to dispense their own medicine. We may as well understand this also.

USE FOR ATROPINE.—C. W. Allen (*N. O. M. & S. J.*) for a woman with severe intestinal colic, vomiting and purging, administered atropine hypodermically up to the dose of gr. 1-8 within six hours before full effect was evident. The patient was then quiet and napping but without mind or vision affected. He used the same remedy in three cases of intestinal obstruction with benefit. In the discussion, Storck told of a case where croton oil and high enemas had failed but atropine hypodermically, gr. 1-60, was given "with almost magical effect." Now and then it seems that a man who doesn't read **CLINICAL MEDICINE** stumbles upon some of the things we have been advocating for many years.

APOMORPHINE.—In *The Medical Record* for Sept. 28 is an exceedingly valuable article upon Apomorphine, by E. L. Fisk of New York City. It is time somebody called attention to this much-neglected drug. He especially insists upon the different action of the drug when administered by the mouth, from what occurs when it is given hypodermatically. He also gives the important points that when administered with morphine and other hypnotics it does not increase their action, although it has some hypnotic action of its own. The crystalline apomorphine salt should always be specified as the amorphous differs considerably. It should not be given as an expectorant when there would be danger from too profuse secretion, as in the bronchitis of the aged. Strychnine should be added when it is given to children or debilitated subjects.

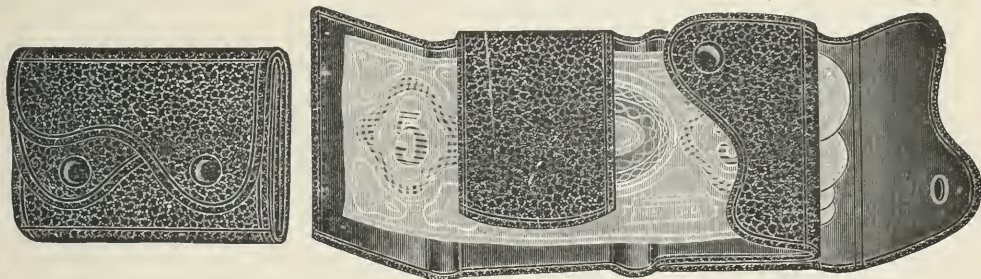
DESTRUCTION OF PENIS.—In *The Lancet* for Sept. 14, Dousfield records two cases of total erosion of the penis occurring in two Chinese soldiers. The cause was not detected. All treatment proved unavailing. The third case was stopped before complete destruction had occurred by the application of turpentine locally. A similar case of total destruction was recorded by a navy Surgeon in a book of essays published by the medical department of the United States Navy over thirty years ago. Among the remedies that failed in Dousfield's cases were dusting with borax or iodoform powder, hot boric fomentations, hip baths with perchloride of mercury one to four thousand, and local baths for twenty-four hours consecutively, lysol and carbolic baths, cauterization with nitrate of silver, curetting, following with applications with pure thymol, mercury and iodine, with local antiseptics.

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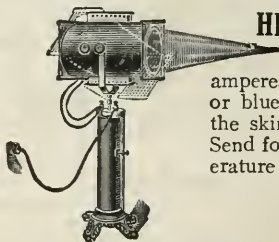


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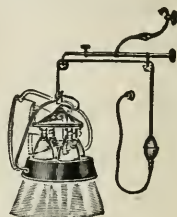


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